PHOTO COURTESY OF VAN NEWKIRK HEREFORDS

Calving Checklist

Plan ahead for a successful calving season.

by ***Heather Smith Thomas***

As calving season gets closer, it's time to start preparing — have everything on hand that might be needed and all facilities and equipment ready and functional. If you have a fertile herd with a short breeding/calving season, it's been at least 10 months since last year's calving; your mind and efforts have been on other tasks. A few calves may arrive early, so don't wait till the last minute to get machinery out of the calving barn or maternity pen if that's where you stored it over summer, fall or winter, or to try to find the new box of OB gloves you bought last year.

If the calf puller hasn't been used for a few years, it pays to remember where it was left instead of rummaging around in the middle of the night trying to find what's needed when a heifer decides to calve three weeks ahead of schedule and needs help — or you discover that the item you need is broken and needs to be repaired or replaced.

For the cows

Mark Hilton, formerly at Purdue University and now at Elanco, says cattlemen should have all the important things handy and easy to grab — whether it's OB chains or medications they might need.

"Keep oxytocin on hand, and epinephrine," he says. "If you are dealing with a malpresentation and the head is back, or a foot is back, or it's breech, and you think you can correct it, giving the cow an injection of 10cc epinephrine in the neck will relax her uterus and you can push the calf back in for straightening. This makes it a lot easier to get the job done and get the calf out."

Robert Callan, DVM, professor at Colorado State University, says producers should also have disinfectant on hand for cleaning up a cow before checking her or assisting a birth or for dipping a calf's navel.

"Povidone iodine (Betadine) or chlorhexadine (Nolvasan) both work," he says. "Nolvasan is more expensive than Betadine, but not necessarily better."

Having both the disinfectant scrub and the solution is beneficial. The scrub contains a detergent and can be used when cleaning the perineal area of the cow. A small squirt bottle is handy to apply the scrub product. "The disinfectant solution is something you'd use diluted with water as a rinse," he says.

Have a bucket for wash water, water mixed with disinfectant solution and a scoop for pouring the water and disinfectant over the back end of the cow to clean her up or squeeze bottles for squirting warm water/disinfectant solution onto the cow.

"Roll cotton works well for scrubbing and cleaning," Callan says. "It holds a lot of fluid when you pull it out of the bucket. It works better than paper towels or clean rags."

A good OB lubricant is important when assisting a dystocia. Callan says there are two kinds. "One is carboxy methylcellulose and costs about $15 per gallon," he says. "It works best if you add half a gallon of hot water to the gallon of lube. You can use a stomach pump and stomach tube to put the lube directly into the vaginal canal and uterus. Diluting it with hot water makes it easier to pump in and warms it to body temperature."

Callan says another type of lube, polyethylene polymer, or J-lube, is inexpensive and comes as a powder. "You just add warm water, which is very convenient," he says. "But one of the lesser-known things about this lube is that it can be fatal if it gets into the cow's abdomen. If there's any chance that she'll need a C-section, don't use J-Lube."

For the calves

The disinfectant can be used for a calf's navel stump. "Most herds don't use this if they are calving out on pasture," Hilton says. "But if you are calving inside, in a barn or pen or had to get a cow or heifer in for help and the pair ends up staying in the barn or pen awhile this is more important. Herds that calve inside a barn are more at risk for many problems, including respiratory disease, navel ill and scours in baby calves."

Cattlemen can't assume they won't have problems just because the herd is calving out on grass. Some people with a minimum-management herd become complacent and don't have the things on hand that they might need in an emergency.

Make sure you have everything you'll need for newborn calves —

elastrator rings if you band baby bulls at birth, injectables like vitamins A, D and E, selenium, vaccines, ear tags for calf identification, etc.

If you don't have tags purchased and ready, those calves may be harder to catch and tag when they are several days old.

Callan recommends giving newborn calves vitamins A, D and E, especially if the cows were on dry forage before calving or if pasture quality is poor due to drought. "Have it ready, and don't use last year's bottle that has been sitting there with dust on top, and already had multiple needles going into it. If the product was contaminated with bacteria, this could result in injection-site infections. Vitamin E preparations have a short expiration date. Injectable vitamins are inexpensive, and it's best to start with new bottles each calving season."

It's a good idea to have colostrum replacer on hand or frozen colostrum from last year or plan to obtain colostrum to freeze from some of the earliest calving cows. "If you buy a colostrum product, make sure it's a replacer and not a supplement," he says, noting a wide variety in quality.

A colostrum product should have a minimum of 100 g of IgG per dose. "Ask your veterinarian what to buy," Hilton says. "Some products are much better than others; there is a huge variation in quality and effectiveness. Make sure you have something with research data behind it."

Callan says frozen colostrum from one of your own cows is far better than any commercial product. "For freezing colostrum, use 1-gallon Ziploc bags," he says. "Collect 1 to 2 quarts of colostrum from a mature cow after her calf has nursed. It's best to collect this within six hours of birth. Place 1 quart of colostrum in the gallon bag to freeze. The gallon bag works better than a smaller one because it has a greater surface area when frozen flat, and can be thawed quickly in warm water."

Depending on the situation and herd health program, cattlemen may want to give newborn calves Clostridial vaccines like *perfringens* type C and D, or maybe an oral *E. coli* vaccine. Work with your herd health veterinarian to know if the cows need to be vaccinated precalving or if the calves need to be vaccinated at birth.

A few packages of electrolytes are also good to have if a few calves get scours. There are good products on the market, but check with your veterinarian on what to buy. If you get caught without anything on hand, you can use a homemade recipe — ½ teaspoon salt, ¼ teaspoon "lite" salt, ¼ teaspoon baking soda dissolved in 2 quarts of warm water.

In case of emergencies, have the veterinarian's phone number memorized or posted on the wall or in your cell phone.

Calving facilities and equipment

Do a walk-through of the calving setup before calving if a barn or pens are used for assisting problem births or shelter during inclement weather. "Make sure you have proper restraint and good lighting," Callan says. "If it's the middle of the night you don't want to have to depend on flashlights."

Callan says it's wise to pressure-wash or to steam clean every hard surface and to strip out the base of the barn or stalls and to throw in some new dirt or some lime after calving. Have fresh bedding on hand in a convenient location.

Make sure calf chains or straps are clean and in a handy location. The calf puller should be cleaned up and in the barn/calving stall within easy reach. Check it for any rust or damage, and address those problems before you need it. A halter and rope may also be useful. A long soft cotton rope for laying down a cow for easier calf delivery after correcting a malpresentation is good to have on hand.

A calf or lamb nipple and bottle are handy if the newborn calf needs to be fed colostrum. A nasogastric tube and funnel or an esophageal probe feeder should also be part of the equipment list

continued on page 42...

Items to have on hand:

- Halter and rope
- Disposable long-sleeve OB gloves
- Obstetrical lubricant in a squeeze bottle
- Plastic bucket for wash water and/or plastic squeeze bottles for wash water
- Rags for washing the cow
- Clean OB chains and handles
- Calf-puller
- Oxytocin and epinephrine
- Suction bulb for suctioning fluid from nostrils of newborn calf that's not breathing
- Iodine or chlorhexadine for disinfecting navel stump of newborn calves
- Flashlight with fresh batteries that work
- Injectable antibiotics for cows and calves, prescribed by your vet
- Sterile syringes and needles
- Bottle and lamb nipple for feeding a calf
- Stomach tube or esophageal feeder for feeding a calf that can't nurse
- Frozen colostrum from last year or a package of commercial colostrum replacer
- Electrolytes
- Tool box to hold/carry needed items in one handy place
- Calf sled or cart to bring newborn calf in from the field to the barn
- Two thermometers — one for sick calves and one for checking newborn or young calves that get hypothermic

Cattlemen should plan ahead and have all important items needed to assist in calving handy and easy to grab.

Clean calving facilities will keep calves warm and healthy.

...Calving Checklist continued from page 41

Before calving

Robert Callan, DVM, professor at Colorado State University, says some cattlemen give vitamins A, D and E to the cows ahead of calving. During drought years with dry forages, cows are often short on vitamin A and E. Trace minerals are also important, especially selenium, copper and zinc, depending upon the forages and soils in your area.

"Calving is a stressful time for cows as well as calves, so a good mineral program is important," he says. "Sometimes boosting the minerals ahead of calving with an injectable product like Multimin can give great benefit to both the cows and their calves. Work with your veterinarian. It can pay big dividends in healthier, stronger calves, fewer stillbirths, etc. In some situations you may also want to give a pre-alving scour vaccine." **HW**

PHOTO COURTESY OF VAN NEWKIRK HEREFORDS

Bedding and windbreaks

For herds calving in January through March, there is immense value in having bedding the calves can nestle down into, according to Claire Windeyer, DVM, assistant professor at the University of Calgary.

"If a calf can lie in bedding, so that the legs are buried, this is equivalent to the ambient temperature being about 10 degrees warmer," she says. The bedding serves as cushion between the calf and frozen ground, helps keep calves dry, acts like a windbreak and traps warm air around the calf.

"Before the start of calving, putting up wind fences and providing calf shelters will have huge benefits," she says. "We had a severe winter last year, with people calving at 40 degrees below zero. It was a challenge trying to keep calves alive. March can be unpredictable here, and sometimes brutal. Most people consider January and February the toughest months to calve, but you know what you are getting into and can plan accordingly. By contrast, March is so unpredictable you never really know what you will get," she says.

Cattlemen can plan to calve in the cold or in the warm weather of summer, but March and April can be difficult to plan for, so it's best to be prepared for the worst-case scenario. **HW**

for any calves that are unable to suck a bottle. "Check the tubes you used last year," Callan says. "If they are old, stiff or dirty, get a new one. An old one may crack, break, or leak if the plastic goes bad over summer. When you suddenly need it, you don't want to discover you need a new one, especially if it's the middle of the night."

If an esophageal tube is used, it's best to have two of them — one for colostrum for newborn calves and a different one for getting fluid into sick calves. Mark them (perhaps one with a C and one with an S) so the same tube is not used for a newborn calf as was used for scouring calves.

Always wash the tube feeders between uses and keep them in a clean place. It's also wise to have a new one on hand in case one of the older ones breaks or starts leaking or the bulb on the end of the tube gets roughened.

If calving during cold weather, plan for how to warm up any calves that get too cold. This could be a heater or warming box or a tub you can put them into with warm water.

Sometimes cattlemen aren't ready when the first cow or heifer goes into labor. Being prepared makes life easier and could potentially save a calf. **HW**

Pasture management for cow-calf pairs

An important aspect of calving planning is choosing where to put calving cows and cow-calf pairs.

"It's been proven that the Sandhills Calving System will decrease scours and other infectious diseases," says Robert Callan, DVM, professor at Colorado State University. "This system takes advantage of multiple calving pasture areas to reduce buildup and transmission of pathogens from older calves to younger calves. One pasture area is used for calving at the start of calving season. After that, the animals that have not yet calved are moved to a new pasture area every one to two weeks depending on herd size and pasture availability. The cow-calf pairs that are already on the ground stay in the pasture they calved in. This system requires four to eight pastures."

If cattlemen don't have the pasture setup, it might be advantageous to put up temporary electric fencing to divide pastures for when the cows start calving. And, Callan advises, don't wait until the ground freezes if you are going to build new fences.

Claire Windeyer, DVM, assistant professor at the University of Calgary, says preparation for calving actually starts with feeding and pasture management of the cows. "It always helps if you can have the cows calve in a different pasture than where they over-wintered," she says. "Pasture management is huge for scours prevention — having a clean area for cows to calve. In conjunction with that, it is important to move pairs out of that calving pasture as quickly as possible."

Windeyer says it helps to put cows and calves into a separate pasture and, if possible, to group the pairs according to age of the calves." Therefore, new babies are not with older calves that may already be shedding scours pathogens. The pathogens in the environment can increase exponentially as calving season progresses; calves born later in the season may be exposed to much greater concentrations if they are kept in the same environment as the early-born calves.

"In every situation, it helps to keep your calving season short," Windeyer says. "Most people think in terms of reproduction and a short breeding season, but it's also crucial in terms of pathogen load in the environment. The longer the calving season, the more pathogen buildup there will be." **HW**