

# Calving-Time Tips

*A compilation of research and Extension beef specialist suggestions as producers prepare for calving season.*



## Are you prepared for calving?

With calving season starting shortly, the time for last-minute calving preparations is at hand. Here are some pointers to help make calving run smoothly.

If you haven't done so already, now is a good time to prepare for the increased workload by checking calving equipment and facilities.

- Take the time to do a walk-through and inspection of your calving facilities.
- Is calf-working equipment — calf pullers, obstetric chains, etc. — in good working condition? Are there items you meant to repair last summer but forgot about or neglected to fix? Fix them now before you need to use them.
- Are the calving pens ready for the demands of calving season? Do you have adequate bedding supplies ready to protect mothers and newborn calves from cold temperatures and snow? Extra bedding and protection from the elements (especially cold, wet conditions) will help to ensure the survival of more calves in severe winter weather.

Invariably, cows and calves will require treatment for sickness or injury during this time. It is best to be prepared ahead of time.

- Do you have a supply of replacement colostrum available for situations when a cow may not produce enough? Ideally, you should use colostrum from cows in your own herd when you need to provide supplemental colostrum to newborns. Store supplemental colostrum in Ziploc® freezer bags or Serving Savers®. These storage devices will make storing and thawing easier and ensure calves receive good-quality colostrum.
- Do you have the pharmaceutical and veterinary supplies you might need during calving? If you don't have sutures, needles, syringes and other supplies, purchase them now. It can be difficult to find a place to buy them in the middle of the night. Organize and store these supplies so they are easy to access when needed.

- If you have hired labor to assist you during calving or if you have asked a neighbor to fill in for a few hours while you are gone, take the time to show them where all necessary equipment and supplies are located. In addition, be sure to give them the phone number of your local veterinarian in case a calving-related emergency occurs.

Cow nutrition plays a big role in calf health. If calving is still a few weeks away, take time to do a thorough evaluation of your nutrition program.

- Are the cows in good body condition or are they thin? If they are thin, boost the energy level in their diets.
- Have the cows received adequate levels of fat-soluble vitamins, especially vitamin A? Vitamin A deficiencies have been linked to increased stillbirths, abortions and retained placentas. If cows have been fed low-quality roughage through the winter, providing supplemental vitamin A prior to calving may be warranted.
- Heifers and young cows have greater nutrient requirements than the mature cow herd. If possible, manage young females separately from older, mature cows.

— *Greg Lardy, North Dakota State University animal and range sciences department*

## Vaccinate soon to control scours later

Weather during springtime calving can be unpredictable and sometimes harsh. The implications of that can lead to important health problems in cattle herds, including scours in newborn calves.

Larry Hollis, Kansas State University (K-State) veterinarian, encourages producers to remember to vaccinate cows and heifers for scours.

“First and foremost it's important to read the label on vaccines,” Hollis says.

Generally, heifers should be given a first vaccination about seven weeks prior to calving with a follow-up injection four weeks prior to calving, he says. If a producer is also concerned about scours in calves born from cows, the cows should typically be vaccinated about 30 days before calving.

— *K-State press release*

## Keep calves dry and healthy this calving season; break the pathogen cycle

When it comes to calving time, producers' main defense in the fight against scours is breaking this pathogen cycle from one calf to the next according to Dave Smith, University of Nebraska-Lincoln (UNL) dairy/beef veterinarian.

Producers should keep pregnant cows in clean, dry locations with little exposure to the pathogens from previously born calves, Smith says. To provide these conditions for cows and their calves throughout the calving season, Smith recommends the Sandhills Calving System.

“The idea is to recreate those ideal conditions by providing a clean place for cows to calve where no older calves are increasing the numbers of pathogens. Pregnant cows should be moved to new pasture regularly, almost like starting a new calving season once a week,” he says.

The first one to three weeks of a calf's life are most critical because young calves are more likely to contract and die from scours, Smith says. Calves born late in the season also are more likely to get sick because they are more heavily exposed to harmful pathogens from older calves.

“We can't eliminate the pathogens, but we can eliminate the doses calves are exposed to,” Smith says.

A misconception among producers is that scours result from calves receiving too much milk. However, milk scours are much less of a problem than scours caused by germs, he says.

Antibiotics are often used to treat scours, but it is easier and less time consuming to work toward prevention instead, Smith says. Otherwise producers find themselves spending a lot of time catching calves to administer antibiotics, which may not be effective.

“We don't recommend calves getting antibiotics routinely. It's much better for calves to get adequate fluids throughout the day for several days,” Smith says. “Another important practice to prevent the spread of scours is sanitation of equipment. Using the same equipment can easily carry pathogens from one calf to the next, so producers need to see that it's disinfected and held in a sanitization solution between calves.”

The effectiveness of different prevention methods is variable by operation. Therefore, it is best to work with a veterinarian to determine the best prevention practices on an individual basis, he says.

For more information on the Sandhills Calving System, visit <http://vetext.unl.edu> or see January 2005 *Hereford World* Page 1.

— *UNL press release*

## Calving management tips

1. Recognize first-calf heifers have a 500% greater risk for calving difficulty than mature cows. Careful observation and experience will dictate when to provide assistance. Heifers should complete the birth process in four hours or less and cows should calve in less than three hours. If no progress in the birth process is seen after 60 minutes of significant labor contractions, assistance should be strongly considered.

Research from Miles City, Mont., conducted by Bob Bellows, makes a strong case for early assistance compared to a longer parturition event. The findings of Bellows and his coworkers showed cows that were assisted as soon as the front feet were visible and the cervix was fully dilated, regardless of calving difficulty, were more likely to be cycling at the beginning of breeding season (91% vs. 82%) and had a higher pregnancy rate during a 45-day breeding season (92% vs. 78%).

2. It has been demonstrated that feeding pregnant cows between 11 a.m. and noon and again at 10 p.m. (+/- 1 hour) will cause 75% of births to happen in daylight hours. Best results with this feeding regimen require that it begin two to four weeks before calving.

3. The two most significant death losses of newborn calves are hypothermia and dehydration caused by scours. Hypothermia is a significant issue in the first 72 hours of life. Normal calves must stand within one hour of birth and nurse within the first two hours. Calves with a body temperature below 100-101 F are experiencing mild hypothermia that may continue to worsen if proper care is not provided.

When a calf's body temperature drops below 95 F, severe hypothermia is already taking place, and immediate corrective action needs to be implemented. A very effective method to regain body temperature in calves experiencing severe hypothermia is to immerse (but not drown) them in 100 F water.

Appropriate windbreaks or natural shelter and bedding will benefit calf survival and vigor when extended periods of below 45 F temperatures are experienced.

4. Scours are usually precipitated by a stress event. Stress events can be a difficult birth, weather changes, inadequate colostrum intake or nutritional challenges. Once a calf has scours, mortality is a result of dehydration. Dehydration can be monitored by pinching skin on the neck. A normally hydrated calf's skin will snap back toward the body immediately; mildly dehydrated (4% or less) skin will tent for five seconds or less. If the skin tents for five to 10 seconds, serious dehydration has occurred. It is not uncommon for a calf with scours to have a lower than normal body temperature. Fluid therapy and electrolyte balance should be the first response to scours if dehydration is occurring. Since several pathogens can cause scours, a veterinarian should be consulted if more than 5% of calves are scouring.

— **Tom Hill**, formerly with Oregon State University department of animal sciences

### Postcalving effects on 2-year-old heifers

Oklahoma State University researchers reviewed 53 reports published from 1970-2004 on the effect of postcalving nutrition and management in heifers calved first at two years of age. The review indicated that conception rates are similar in both first-calving and older females but that longer postpartum intervals to first estrus (PPI) and decreased pregnancy rates are common in rebreeding first-time calvers. So, higher nutrition and management are required if acceptable performance is to be realized from rebreeding 2-year-olds.

Early weaning of calves notably decreases PPI and increases pregnancy rate. Dietary energy restriction has the opposite effect on those two responses, regardless of age or parity. Neither dietary fat nor undegraded intake protein supplementation

consistently improved reproduction in first calvers. Prebreeding exposure to bulls did decrease PPI and possibly increased first-service conception rates.

The greatest positive effect on reproduction in rebreeding first calvers was realized from managing for adequate body condition at calving (body condition score of 6 or higher) and providing adequate nutrition to minimize loss of condition and body weight after calving. The authors noted that positive effects from good management must be balanced against any corresponding costs.

— **Steve Hammack**, Texas A&M University  
Beef Cattle Browsing Newsletter



### Predicting the time of calving

Scientists recorded data on five consecutive years in a herd of spring calving crossbred cows at the K-State Agricultural Research Center at Hays, Kan. They recorded the time of calving (to within the nearest one-half hour). Births that could not be estimated within an hour of occurrence were excluded.

Cows were fed forage sorghum hay daily between 4-6 pm. For statistical purposes, the day was divided into four-hour periods (see Table, right).

It is interesting to note that 85.28% of the calves were born between 6 a.m. and 6 p.m.

These data also revealed that for a majority of animals in the herd, the time of calving was within three hours of the average time of day that cow had previously given birth. Feeding the forage in the early evening hours undoubtedly influenced the percentage of cows calving in daylight hours.

Four-hour period	% of calves born
6-10 a.m.	34.23
10 a.m. to 2 p.m.	21.23
2-6 p.m.	29.83
6-10 p.m.	8.41
10 p.m. and 2 a.m.	4.40
2-6 a.m.	0.91

— **John Jaeger and co-workers**, Abstracts 2002 Western Section of American Society of Animal Science

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