



Preparing for and Managing the Calving Season

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FORAGE

A new crop of calves will soon be before us. For some of you, they have already started to drop! These new calves help to drive the profitability of your operation, therefore it is important to be prepared, in order to give these animals the best chance at productivity. Although spring and summer calving is still a few weeks to a few months away, now is a good time to make those necessary preparations. They will be handy when the first heifer needs help in the middle of the night. In addition, understanding the process of calving will help to ensure minimal calf loss, meaning more profits. Using the management techniques outlined below will help to ensure a successful calving season.

Manage Nutrition

Adequate nutrition is necessary during the last two months of pregnancy. This is because the majority of fetal growth occurs during this period. In order to ensure best nutritional and breeding management, it is suggested to keep heifers and mature cows separate. Heifers are still growing, so they require a higher plain of nutrition than cows and having two groups makes feeding much more economical. Cows and heifers that have a thin body condition at calving are slower to rebreed, produce less colostrum and are less likely to wean a live calf. It is also important to remember that energy is first used for maintenance, growth and lactation, before being partitioned for reproduction. The timing of feeding can have an influence on when your animals calve. Therefore, feeding preparturient cows in the late morning (11am to 12pm) and then again in the evening (9pm to 10pm) will encourage them to calve during the day (7am to 7pm), which is helpful in Identifying those animals who may require assistance.

Table 1. Nutrient requirements of beef females after calving.

Beef Female Class	Expected Mature Weight (lbs)	Months Since Calving	Daily Dry Matter (DM) Intake (lbs)	Total Digestible Nutrients (% DM)	Crude Protein (% DM)
Lactating Cows (20 lbs peak milk)	1,400	1	29.5	58.0	9.8
		2	30.5	59.1	10.3
		3	31.5	56.8	9.6
Lactating 2 year old Heifers	1,400	1	25.3	60.0	10.0
		2	26.2	60.9	10.4
		3	27.1	58.7	9.7

(NRC, 2000. Adapted from NRC Nutrient Requirements of Beef Cattle, 7th revised edition)

Calving Preparations

It is important to have all the things that may be required during calving ready and available to you. Generally this should be done prior to the first calf being born. Being prepared will make the season much easier and less stressful!

Equipment. Do a walk-through of pens, chutes and calving stalls. Make sure that they are clean, dry, strong, safe and functioning properly. This is done a lot easier on a bright afternoon, than in the middle of a cold night, when you need them.

Protocol. It is a good idea to have a plan of what to do, when to do it, who to call for help (including phone numbers) and how to know when you need help. Make sure that all family members or helpers are familiar with the plan. If necessary, copies should be posted in convenient places. It may also be useful to have a chat with the local veterinarian about the protocol and incorporate any of their suggestions.

Lubrication. Either purchase or locate lubricants to use on the obstetrical sleeves. Many different lubricants have been used, but the best, simplest and most economical is non-detergent soap and warm water.

Supplies. Be sure to have the medicine chest stocked before calving season. The chest should include: disposable obstetrical sleeves, non-irritant antiseptic, lubricant, obstetrical chains (60 inch and/or two 30

EVENTS

Local Foods Marketing Workshop

Feb 14 @ Valleyview
AgPlex

Feb 15 @ Grimshaw
Legion Hall

10am-4pm, \$20

- accessing new mar-
kets

- marketing direct to
consumers

- profit opportunities

- producer stories

RSVP by Feb 10 to

Morgan @ 835.6799

Genomics Research Update

Feb 22 @ Grimshaw
Legion Hall

4pm-9pm

- researcher and pro-
ducer perspectives on
genomics linking feed
efficiency

\$30 members, \$50 cou-
ples, \$40 non-members

RSVP to Nora @

836.3354 or Morgan @
835.6799

Water Workshop

Mar 13 @ Fairview—
GPRC Campus 121 AS

6:30pm to 9:30pm

- dugout construction
- water quality trouble-
shooting and treatment
options

\$10 members; \$15 non

RSVP by Mar 9 to

Morgan @ 835.6799



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inch chains), two obstetrical handles, mechanical calf pullers and injectable antibiotics. Don't forget the simple things like a good flashlight with extra batteries and some old towels or a roll of paper towel. Putting them in a make-shift obstetrical kit (5 gallon pail) will make it a bit easier to grab everything at once.

Avoid Calving Difficulties

Most of the time, loss is due to dystocia (a birth that requires assistance or results in a weakened/dead calf or injured dam), which is most common in calves born to first calf heifers. It can be prevented if heifers and cows are watched closely and the dystocia problems are detected and corrected early. The most common cause of dystocia is relative fetal oversize (calf too big, pelvis too small or both). Sire selection is the key in the prevention. Underdeveloped heifers and heifers bred to bulls with large birth weights can cause increased incidences of difficult births. The second most prevalent cause of dystocia is abnormal presentation or position of the calf. A third cause of dystocia would be due to lack of uterine contractions or uterine fatigue. Causes of this is not well known, but hormonal imbalances and/or low calcium levels may be responsible. In any of those cases, veterinary assistance may be required.

Colostrum

Feeding Amount. A calf should receive 5-6% of its body weight in colostrum within the first 6 hours of life, another 5-6% when it is 12 hours old. Colostrum weighs approximately 10 lbs/gallon (imperial), therefore an 80 lb calf would require 4 lbs of colostrum at each feeding. The reason it is so important to endure adequate colostrum so early in life is due to the fact that as the calf ages, their ability to absorb the antibodies declines rapidly, to the point where the gut is pretty much closed 24 hours after birth. In cases where birth has been prolonged, the calf takes a while to stand, colostrum supplements may be effective. Utilizing stored colostrum is another method to ensure calves receive adequate antibodies, especially in required situations. It is, however, important to store and thaw colostrum according to the following recommendations.

Collection & Storing. Colostrum should be collected within the first 24 hours of calving. Using Ziploc® bags are useful as they allow for easy, flat storage and an amount that is manageable when thawing. Be sure that colostrum is **never** thawed and then refrozen! It can be stored up to 1 year with no loss of quality. If you think that the colostrum will be required in the next day or so, you can also store it in the fridge for up to 1 week or at a moderate temperature (20°C) for up to 2 days, finding that there should not be a decrease in quality.

Thawing. Correct thawing of the colostrum is important to be sure there is no damage to the sample. It should be placed in warm water and thawed slowly. A good suggestion to follow is to submerge the sealed bag of frozen colostrum into a warm (not hot) bath until it is thawed completely.

The time that is required will ultimately depend on the size of the container. The colostrum should then be warmed to 40 - 43°C. It can be thawed in a microwave, but should be done a low setting and stirred frequently to help promote even heating.

Factors Affecting Production. The age, breed and nutrition of the dam can affect the volume and quality of the colostrum produced. Older cows, due to larger udders and better milk secretion, tend to have higher volumes and quality colostrum than first and second calvers. Beef animals also tend to have higher antibody concentrations due to the lower volume of milk produced (less dilution). Protein levels in the diet are important for volume, quality and maintaining antibody content, therefore a good nutrition program will help to improve the quality of the colostrum.



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