



Preventing Calf Scours On Your Ranch

Aside from calving difficulty, neonatal diarrhea is the number one killer of beef calves. The common agents are *E. coli*, *Rota virus*, *Corona virus*, and *Cryptosporidium*. Minimizing death and disease losses in the calf herd can save hundreds of dollars. Treatment costs, along with reduced average daily gain of survivors, are very costly.

The 5 C's that are key to a healthy start are: Colostrum, Calories, Cleanliness, Comfort, and Consistency¹.

Producers should clean and disinfect all calving areas to the best of their ability. If you have 1,000 cows on 40 acres for the winter, move them to fresh ground to calve on.

Keeping calving areas clean and dry can effectively reduce the number of scouring calves. Mud and unsanitary conditions are the major culprits behind calf scours. The higher the dose of infectious agents in the environment the more likely the calf will get sick. Keeping calves dry (and therefore warm) is probably the single most important factor in eliminating scours.

Separating from the herd all calves that do have scours decreases exposure of healthy calves to scours-causing organisms. Heifers are much more likely to have calves with scours. Often, those calves contaminate birthing areas and put later season calves at a higher risk.

Vaccination for scours will not be needed in every setting and will not overcome major breaches in sanitation. Vaccines cannot be effective if the calves are born in cold mud already infected with a host of diseases. Ask your veterinarian which scour vaccines are beneficial in your area.

Don't introduce replacement animals into the herd two months prior to or after calving season.

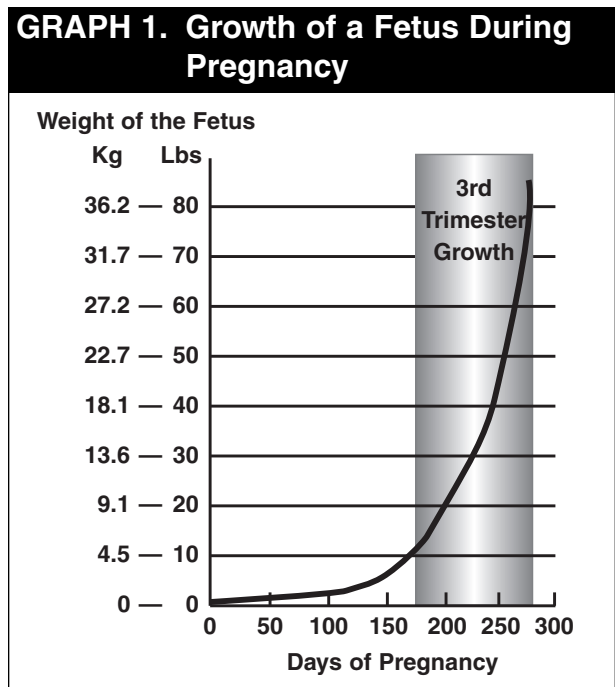
Colostrum contains all the antibodies a newborn calf will have until it has time to make its own. Be sure calves get plenty (10-12% of body weight in the first 24 hours, half of this in the first 6 hours; 3-6 quarts depending on calf size). Calves from heifers or cows with big udders or teats run a great risk of not getting enough colostrum. The antibodies the cow has made to resist the diseases for which she has immunity (from exposure or vaccination) will be present in her "first" milk for approximately 24 hours after calving and will help protect the calf during the first 6-8 weeks of life.

Never purchase nurse calves to replace ones that died. Nurse calves are often inapparently infected with various organisms and can cause major outbreaks of calf scours.

Stress and the changes that occur in the calves' immune and metabolic systems as they adjust to new environments are nearly always part of a disease outbreak. Try to move newborn calves so as to minimize exposure to other calves, particularly those that are already ill or may be incubating disease.

Although the vitamin E requirement for beef cows is not well defined, it is estimated to be between 7 and 28 IU/lb of dry matter (DM) intake². A 1,200-pound beef cow consuming 2.5% of her body weight in DM would need at least 210 units per day. If you calve before grass is green, adding 2 pounds of **VITAMIN E 20,000** per bag of mineral would give you 200 extra units per 4 ounces of mineral. I have many herds doing this precalving through breeding period. Research at

Ohio State University shows that vitamin E and selenium may help reduce the incidence and duration of mastitis outbreaks in dairy cattle (JDS 67:1293). Adding extra vitamin E during the prepartum period has been demonstrated as an effective means in reducing retained placentas, incidence of mastitis, and improved reproductive performance. In another study, winter-born calves from vitamin E supplemented Hereford cows had heavier 205-day adjusted weaning weights than did winter-born calves from unsupplemented Hereford cows³. It is important to increase the plane of nutrition in the third trimester. Graph 1 shows how much weight the calf gains the last 90 days of gestation. Add to that the colostrum formation needs and it becomes obvious how important a balanced ration is to cows in the last trimester of pregnancy. Feeding enough protein, energy, minerals, and vitamins is essential for a proper functioning immune system. A deficiency in any one of these will result in an increase in sick calves.



RITE START™ COMPLETE CALF

COLOSTRUM REPLACEMENT is a one pound dose containing a minimum of 100 grams essential globulin proteins. It will replace the cow's natural colostrum given to the calf and may improve survival through increased globulin protein availability. It would be good insurance to have a case of 12 on hand at the start of calving.

CRITICAL CARE is a unique electrolyte for calves to treat dehydration from bacterial enteritis. Calves treated with Critical Care required fewer antibiotic treatments and 14-day weight gains were greater for calves fed Critical Care versus calves fed traditional electrolytes.

35S MOS-CTC PLUS is a medicated mineral that contains chlortetracycline for the control of bacterial pneumonia associated with shipping fever complex in beef cattle on pasture. It also contains mannan oligosaccharides (MOS), a nonantibiotic that can decrease scouring in calves. The MOS is a natural long-chain sugar from select strains of yeast that is not digested but binds with certain pathogenic bacteria to render them harmless. This mineral can be fed 3 to 4 weeks precalving until the last calf born is three months old. Adding low mineral feeders has helped reduce scours by increasing intake of Vigortone mineral by these young calves.

32SD PLUS is a medicated mineral that contains Decoquinatate for the prevention of coccidiosis in ruminating and nonruminating calves and cattle. Decoquinatate is a nonantibiotic synthetic molecule, active on certain protozoa: coccidia, toxoplasma cryptosporidia, and Neospora. Coccidia is commonly spread when a cow lays in an area of fecal contamination, gets manure on her teats, and a calf nursing the teats ingests the coccidia contaminated manure.

¹www.johnes.org/handouts/files/5Cs.pdf

²Beef NRC 2000

³Am J Vet Res. 62(6):921