

## **Spring Stress for Calves**

Springtime is calving time on many beef and dairy farms in the Hubbard Feeds Inc. market area. Damp changeable spring weather is a stress on young calves. This, coupled with the severe disease challenges that can result when pastured animals are concentrated into limited space, has the potential to result in sick calves.

Calf scours is the most common problem on both beef and dairy operations. Scours is caused by several infectious organisms which can be difficult to differentiate in a clinical setting. Respiratory infection is also a concern especially with confined calves. Respiratory infection like scours can be caused by multiple viral and bacterial agents.

## **Maximize Viability with Good Nutrition Management**

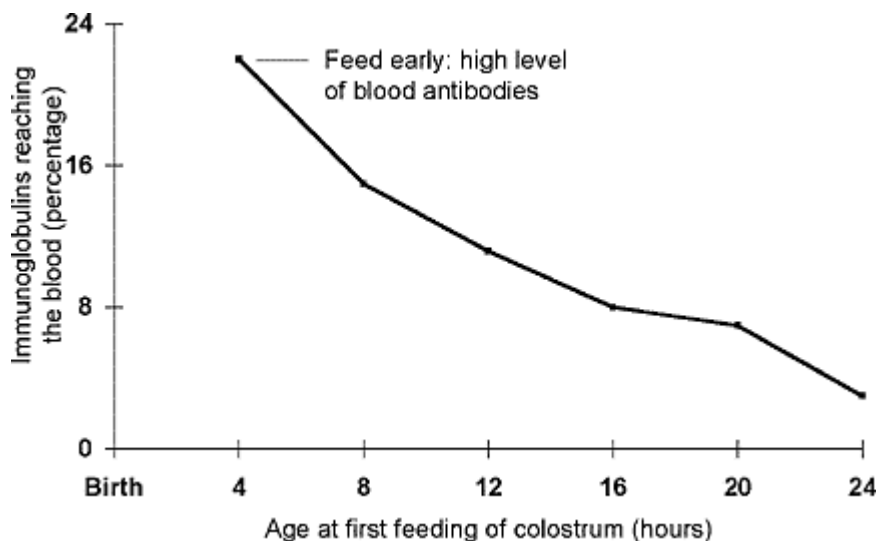
The incidence of calf diseases such as scours and pneumonia can be minimized with good management practices. Medical management practices such as vaccination programs are effective in minimizing the occurrence of disease. Nutritional management of both the cows and the calves has a major effect on calf health and survivability.

Beef cows need adequate nutrition during the third trimester in order to support growth of the calf and mammary development of the cow, while maintaining adequate vitamin and trace mineral stores to support optimum immune function. Most producers recognize the need for energy and protein to support calf development and milk production. More nutritionists and producers are now recognizing the importance of adequate trace mineral and vitamin levels in the cow's diet in order to maximize calf viability.

## **Colostrum for a Strong Start**

The importance of colostrum in maintaining the health of baby calves has been recognized for many years. An effective colostrum feeding program supplies adequate amounts of high quality colostrum on a timely basis. Figure 1 is a graph which demonstrates how rapidly a newborn calf's ability to absorb colostrum decreases. In order for a colostrum feeding program to be effective, the colostrum needs to be administered as soon after birth as possible. Ideally, the calf should receive two quarts of colostrum soon after birth followed by another feeding at 12 hours of age. Colostrum quality should be measured with a colostrometer. High quality colostrum registers in the green zone. Marginal or poor quality colostrum registers in the yellow and red zones respectively. Two feedings of high quality colostrum are adequate for most calves.

### **Figure 1.**



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### **Help is Now Available**

When marginal or low quality colostrum is fed, the calf should be supplemented with a colostrum supplement such as Lifeline. Lifeline contains 45 grams of a globulin protein (IgG) per feeding. IgG functions by supporting the calf's disease resistance the first few weeks of life. Ideally, each calf should consume at least 100 grams of IgG. Lifeline, therefore, should be considered a colostrum supplement and not a colostrum substitute. For maximum absorption of globulin proteins, Lifeline should be mixed with warm water and administered approximately four hours following the first colostrum feeding. Alternatively, Lifeline can be mixed with poor quality colostrum and administered during the same feeding. Colostrum is not always available. Orphan calves and calves from herds concerned about the transfer of diseases such as Johne's disease or salmonella do not have a readily available source of colostrum. Lifeline, while designed to be a colostrum supplement and not a colostrum substitute, may be the only source of globulin protein available to calves in these herds. In these situations, two doses of Lifeline may be administered during the first 12 hours of life in place of the colostrum feedings.

### **When Scours Strikes**

Unfortunately, not all calves remain healthy. Calf scours is a major cause of sickness and death in young calves. Many times calves that succumb to calf scours die from dehydration and electrolyte imbalance. If a nutritional supplement can aid in maintaining hydration and electrolyte balance for a long enough period of time, the calf will usually recover. Thrive is an excellent oral rehydration nutritional supplement for scouring calves. Thrive is mixed with two quarts of warm water and fed twice a day. Current recommendations are to feed Thrive while continuing to feed milk or milk replacer.

### **Summary**

Lifeline and Thrive are both useful nutritional supplements to the diets of baby calves. Lifeline is used to supplement colostrum and to provide the nutritional boost needed to keep calves healthy. Thrive should be administered to young scouring calves in an attempt to maintain their hydration and electrolyte balance and give them a chance to recover. Beef and dairy producers should keep both products on hand so that they can quickly respond when problems develop.