

# River View Veterinary Service Newsletter

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## News and Upcoming Events:

- Are you VFD ready? These rules took effect January 1, 2017. Ask us what you need to get ready!
- Big thanks to all that attended Calving School! Be watching for our upcoming AI/Breeding School later this spring!

*Welcome to the River View Veterinary Service Newsletter,  
designed to provide cattle producers with  
timely information and education on a variety of topics.  
Sarah Foust, DVM and Terry Foust, DVM*

## Colostrum

Cow-calf and dairy operations depend upon successful calving for their herd's performance and longevity. The health of the calf is of utmost importance for both replacement heifer or bull development and feeder cattle growth. Colostrum is critical to the start of a healthy life of a calf. Let's take a closer look at colostrum and colostrum replacers.

Calves are born, in essence, without an immune system. Colostrum made by the cow provides immunoglobulins (immune system components) that confer immunity to a calf through absorption by the gut, a process termed passive transfer. A cow in poor vaccination status or health will not likely give adequate colostrum to her calf to provide protection. Immunoglobulin concentration can also be affected by the quantity of colostrum. In dairy cattle, this is of particular concern. High-producing milk cows dilute the concentration of immunoglobulins in the colostrum. Thus, the calf may have a failure of passive transfer, despite getting large quantities of colostrum.

In general, a calf should get 2-3 quarts of colostrum every 6-8 hours until 24 hours old. The first feeding should be given within 1 hour of birth. The first 2 feedings are the most critical, as gut closure occurs somewhere between 12 and 24 hours of age. Once gut closure occurs, no immunoglobulin can be transferred into the calf's bloodstream, where it is needed. In dairy cattle, tube feeding is recommended if the calf does not suckle the entire 2-3 quarts. In beef cattle, most calves will nurse early enough and long enough to consume adequate colostrum quantity.

When a cow is not producing enough or good quality colostrum, a colostrum replacer may be necessary. Not all colostrum replacers are created equal, however. There are 3 major types of colostrum replacers: bovine serum based, egg or whey based, or dried bovine colostrum. The egg and whey based colostrum has large amounts of protein, but very little immunoglobulins and will transfer little to no immune function to the calf. Bovine serum based colostrum replacer has immune components, such as immunoglobulins, but it is unknown how much immune function the calf may derive from this source. Dried bovine colostrum replacer is the best choice, as it contains immunoglobulins and has been proven to provide protection to the calf.

Ensuring the right start for calves is critical to the success of cow-calf and dairy producers. Make sure calves get adequate quantities of good quality colostrum in a timely fashion. Be cautious of what types of colostrum replacement is used to ensure adequate protection for calves. If you have questions about your cows and their colostrum intake, please give us a call at 309.848.9093! Happy calving!