

For the past few weeks we have discussed prevention and treatment of illnesses in newborn calves. This week's email will provide recommendations for the prevention of respiratory illnesses in calves two weeks old and older.

Two popular methods of illness prevention are injectable or intranasal vaccines. Deciding which type of vaccine to use is greatly dependent upon the age of the calves.

We have extensively discussed the importance of adequate colostrum intake the first few days of a calf's life. One of the reasons colostrum is so important is because it protects the calf from disease for the first three months of its life. The maternal antibodies that the calf receives via colostrum intake prevent the calf from fully responding to an injectable vaccine until after it is three months old. Therefore, an injectable vaccine is most effective in calves if given after three months, then again three weeks after the initial injection.

However, unlike injectable vaccines, the effectiveness of intranasal vaccines is not affected by colostrum. Instead, they provide intracellular immunity via the calf's nasal cavity. Intranasal vaccines are beneficial in that they can be given to any healthy calf, regardless of its age.

Take for example, the following scenario:

A bad case of pasture pneumonia breaks out in your herd in calves less than three months of age. Pasture pneumonia is most often caused by the PI₃ and IBR viruses. Calves then become secondarily infected with mannheimia-pasteurella bacteria that can cause death. Using an injectable vaccine to prevent illness in unaffected calves would likely not be effective because all of the calves are less than three months old. Affected calves should be treated with antibiotics, and unaffected calves should be given an intranasal vaccine to aide in the prevention of contracting the illness.

This scenario depicts just one of the reasons why intranasal vaccines may be more beneficial than injectable vaccines when preventing illness in calves younger than 3 months of age. Age must be taken into account when deciding which method of vaccine to use to provide illness prevention, especially if the calf is younger than three months old. However, illness prevention in calves older than three months may be done effectively with either injectable or intranasal vaccine. Another method for preventing illness in calves is to vaccinate the cows every fall of each year. Consistent use of a respiratory vaccine in cows will help prevent and in many instances completely eliminate pasture pneumonia in your herd altogether.

For more information about the prevention of illness in older calves, or to purchase vaccine to aide in the prevention of illness, please contact us.