



Mitchell Veterinary Services

Pauly Veterinary Clinic

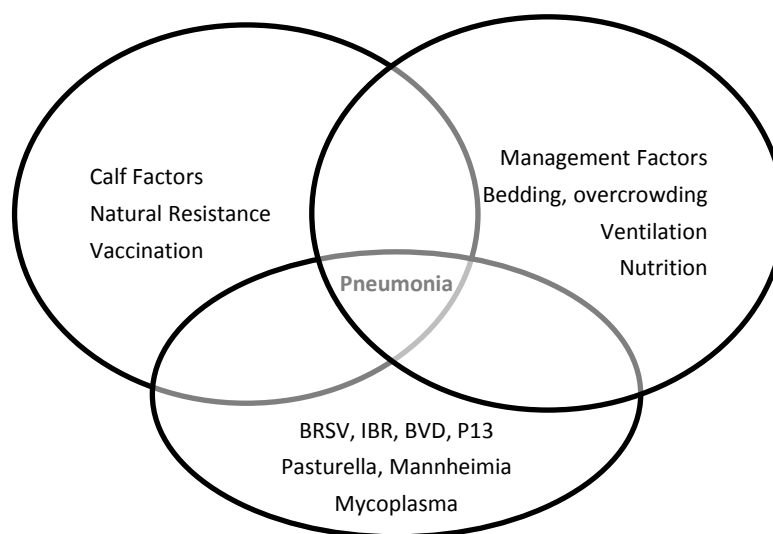
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Dairy Newsletter
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SPRING PNEUMONIA IN CALVES

As spring approaches and the weather warms up, the incidence of pneumonia in calves increases. Pneumonia outbreaks are caused by the interactions of many factors as shown in the diagram below. While the weather can't be controlled, management factors such as bedding use to keep calves dry, preventing overcrowding in pens, adequate nutrition and ventilation can minimize stress that will suppress the calf's immune system. Infectious agents tend to always be present in a herd within some carrier animals. When carrier animals become stressed or weather has extreme fluctuations in humidity and temperature, these viruses, bacteria and mycoplasma start to multiply in the carrier animal and be shed into the air. They are then spread by being inhaled by other calves, as well as sharing of pails, water bowls and feed troughs. Calves have varying levels of immunity depending on their natural immune system, their age, the vaccination of their dam and colostrum fed, and their own vaccination response. When the interaction between the calf's immunity and management fall apart and the infectious agents are present, an outbreak of pneumonia results.



Calf pneumonia infections will often begin with the viruses, BRSV being the most common. Within several days the bacteria, Pasteurella and Mannheimia are contributing to the pneumonia. Then mycoplasma moves in and is responsible for significant permanent lung damage.

A preventative vaccination program will stimulate the calf's immune system to respond to these virus and bacterial infections if they become exposed. Vaccination does not mean that your calves will never become sick. A breakdown in the factors that are interacting as shown above, will allow vaccinated calves to come down with pneumonia. The most protective vaccine for calf pneumonia is Inforce 3. This vaccine is given intranasal to calves on milk. It can be used in calves as young as 3 days of age. Inforce 3 should be followed with Bovishield Gold or Express before weaning to vaccinate for BVD and booster the IBR and BRSV viruses. Another booster vaccination should be given to all heifers before breeding.

To control the risk and severity of pneumonia in our calves and heifers, we must maintain good calf management practices and stimulate the calf's immune system with a protective vaccination program. When variable weather hits, we have prepared the calf as well as possible to handle what Mother Nature throws her way.

Rick Knill