CALF PNEUMONIA....AN OVERVIEW

There has been an awful lot written about calf pneumonia over the years to the point where it is possible to be overwhelmed with information and get very little practical advice. The aim of this article is to break it down to easily understood sections with useful tips and suggestions.

The starting point has to be...have I got this disease? Many of us accept a low level of coughing among our calves as normal. Abattoir studies have shown that up to 37% of animals reported as never having had pneumonia show signs of lung damage at slaughter. Other studies show that assessing calves clinically only picks up about 70% of diseased animals. In other words, lots of animals get pneumonia and survive it without ever being diagnosed or treated. This is not a good thing. At a purely financial level, we know that lung damage equals dramatic reduction in growth rate and finishing weight. We also know that these undiagnosed calves are propagating the viruses that cause pneumonia and setting up that serious outbreak that occurs later with sick calves and serious losses. And if nothing else, sick, untreated animals are a potential welfare issue.

So what pathogens are out there causing pneumonia? Primarily this is a viral disease. There is a respiratory syncytial virus (RSV), parainfluenza virus (PI-3), infectious bovine rhinotracheitis virus (IBR) and bovine viral diarrhoea (BVD). These are rarely capable of causing death on their own, they damage the lungs allowing the mycoplasmas and bacteria such as Pasteurella to wreak havoc. It is a relatively simple task to identify what bugs are present on your farm. Naso-pharangeal swabs taken early in the outbreak can give rapid answers and blood samples taken at the start of a problem then repeated some weeks later can give valuable information. If we know which bugs are there, we are half way to controlling the problem.

But it isn’t just about what bugs are present on your farm. Calf pneumonia is overwhelmingly a management disease. If we can create the conditions that reduce the number of viruses and boost the calves’ immune systems, we can stop this disease without resorting to antibiotics too often. The immune status of the calf is heavily influenced by colostrum intake. The management in the first six hours will affect pneumonia levels six weeks later. A simple blood test can show if your calves are getting enough colostrum and we’ve seen stubborn pneumonia problems dramatically reduced just by concentrating on the management of the newborn calf.

We also have vaccines available to boost immunity. Knowing which virus is present helps a great deal in selecting the type of vaccine, the route of administration and the timing of the vaccine. Don’t however see vaccines as a panacea. They are merely one tool and if we don’t get the other factors right, you will be disappointed.

We all know that buildings influence pneumonia. If ventilation is right, it not only boosts the calves’ immune system by stopping the build up of damaging ammonia, it dramatically reduces the number of viruses present. We got the opportunity as part of the SWHLI project to get on farm and assess buildings. We were shocked by how many buildings looked ok but when we did the calculations on stocking density, air inlets and air outlets, these buildings were inadequate. Most days, they worked reasonably well, but when weather conditions changed they failed to ventilate properly and calves succumbed to disease. In many cases the modifications needed to improve the functions of these buildings were relatively minor and inexpensive. If you have stubborn pneumonia problems, we will be glad to look at calf accommodation as part of the overall control package.
The viral challenge can also be influenced by other simple management practices. Older calves will often shed virus and be free of symptoms. If these calves are mixed with, or even share the same airspace as younger calves, they can induce disease in the youngsters. If you buy in calves and mix them with other stock without a quarantine period, you will be buying in somebody else’s problems. Even if you share the same mix of viruses, a more virulent strain can wreak havoc.

Finally we know it is not a perfect world and with the best of intentions, there will be times when antibiotics are needed to control pneumonia. There is a wide and potentially confusing range of antibiotics on offer. Again it helps if we know which bacteria and mycoplasmas we’re dealing with and their resistance patterns to allow sensible antibiotic choices, so swabs may be useful. Some of the newer antibiotics are incredibly long acting which we know is beneficial in successful treatments and many are licensed for treating in contact animals as well. Choosing the right one is not straightforward.

So if pneumonia strikes this year, don’t wait until losses have built up, get in touch. Any of our vets will be glad to advise on pneumonia control and are keen to get away from just prescribing drugs. A comprehensive approach to controlling this extremely important disease is far more cost effective.