



Calf Pneumonia

Kingshay estimates that each case of pneumonia costs £43 per calf plus £29 for each calf in the rest of the group. Vet medicines are only a small part of the cost (honestly) whereas reduced growth rates/failure to thrive make up the rest. Replacement heifers that have been affected are shown to produce 350kg less milk in their first lactation.

The key is to have sufficient **air speed** to get rid of any **moisture** and bring in **fresh air**. Most respiratory viruses survive for about 5-10 minutes in fresh air but if only 50% of the air is fresh (in a shed not adequately ventilated) then the viruses can survive for an hour or even longer – so obviously increasing the risk of infection. Fresh air also removes noxious chemicals such as ammonia which can damage the lung lining.

So management needs to be aimed at:

- **Colostrum** - blood testing calves 24-48 hours old will show what levels of antibodies they have received
- **Ventilation**
- **Moisture control**
- **Grouping animal of similar age**
- **Vaccination** where known high levels of challenge, especially if buying calves in.

Respiratory disease is complex but often starts off as a viral infection - commonly Respiratory Syncytial Virus (the one that kills young calves very quickly) and Parainfluenza 3. We tend to see IBR in slightly older calves. Bacteria are usually "secondary invaders" with the exception of Pasteurella (causing "Shipping Fever").

Vaccination

The problem with vaccines is that they themselves are quite complicated and there will always be a "lag time" before immunity has built up – **this is where close attention to calf management in order to minimise the risk of disease is paramount.**

Risposal Intranasal can be used very early on and has a more rapid onset of immunity – 5 days for the RSV component and 10d for the PI3. As there is virtually no interference from maternal antibodies in colostrum to the vaccine you can use this down to very young calves (though licensed from 9 days) and immunity lasts for 12 weeks.

Rispoval 4 provides longer lasting protection (about 6 months compared to 12 weeks) and covers IBR as well. Ideally it should be given at least 2 weeks before an expected stressor eg transport, housing, mixing (!). You do need 2 doses and if calves are vaccinated twice below 12 weeks then they should receive an extra third dose.

| | RSV | PI3 | IBR | BVD | Use from |
|---------------------|-----|-----|-----|-----|--|
| Rispoval intranasal | + | + | | | 1 week old, single dose intranasally |
| Rispoval 4 | + | + | + | + | 8 weeks old, 2 doses 4 weeks apart i/m or 3 weeks old, 3 doses 3-4 weeks apart |

There is also a **Rispoval Pasteurella** vaccine which can be used from 12 weeks old. This is a single dose and should be used at least 7 days prior to an expected stress eg transport.

Treatment

- Do hit hard first time – **use anti-inflammatory injections** plus an antibiotic. *Remember the anti-inflammatory is likely to be doing most of the work* especially if you catch the disease early. Some antibiotic preparations come with an anti-inflammatory part in them so you only need to do one injection at one go although it may need repeating in 2-4 days.
- Monitor other calves in the group closely - calves with early pneumonia will still drink milk and look normal! It may be better to prophylactically treat the whole lot straight away rather than treating one or two calves every day as they become obviously sick.