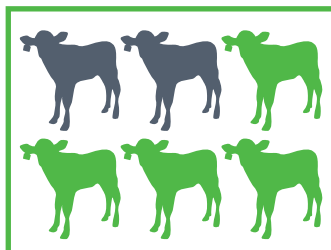


CAUSES AND SIGNS OF CALF PNEUMONIA

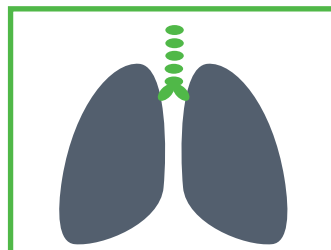
Calf pneumonia is the more commonly used name for Bovine Respiratory Disease (BRD). It is a complex, multi-factorial disease which results in inflammation and damage to the tissues of the lungs and respiratory tract; the effects of which can last a lifetime.



Pneumonia is the most common reason for death/poor performance in growing calves.¹



Pneumonia leads to reduced daily live weight gain for both animals diagnosed with pneumonia and those in contact with them which look healthy. This results in hidden productivity and profitability losses.²



Cattle are prone to suffering from respiratory diseases due to a relatively small lung capacity and narrow airways.



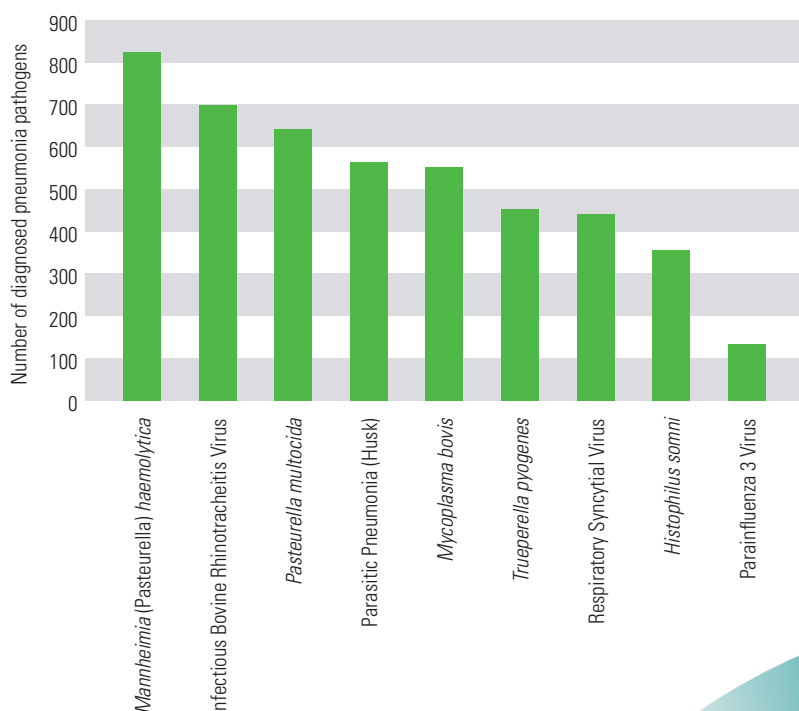
Pneumonia can strike at any time, but you need to be particularly vigilant during the 'high risk' pneumonia months of November through to January, when the majority of cases of calf pneumonia occur.

Causes of pneumonia

Causes of pneumonia are multi-factorial with contributing interaction from the disease-causing pathogens, the calf's environment and the health status of the calf itself. Each of these factors can cause a reduction of productivity on its own but a combination can lead to clinical disease as well.

Pathogens:

APHA Surveillance Data for Pneumonia Pathogens 2012-2017



Any of these pathogens³ can contribute to pneumonia in calves but mixed infections are common and every farm's pathogen mix is different.

It is important to work with your vet to accurately diagnose the cause of pneumonia on your farm. Remember that pathogens can change over time too so re-testing is very important.

Stress factors:

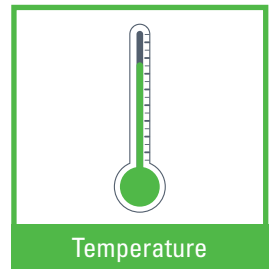
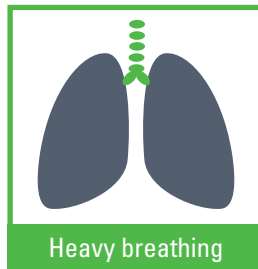
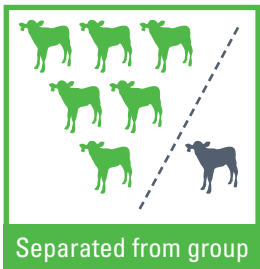
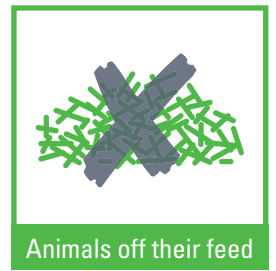
Factors which are known to have significant impacts on calf pneumonia occurrence and spread on farms:

- Sick animals not being isolated
- Mixing different age groups of calves
- Transport stress
- Sudden changes of diet (e.g. weaning)
- Exposure to draughts
- Overstocking
- Inadequate ventilation
- Extremes of temperature
- Poor hygiene/drainage
- Poor access to feed, inadequate amount of feed or sudden changes in feed composition
- Too many interventions at once i.e. weaning at the same time as disbudding causing stress

Signs of pneumonia

The early signs of pneumonia can be difficult to spot even for the most experienced herdsmen and an elevated temperature is the first sign of pneumonia taking hold, which can occur days before other clinical signs being displayed.^{4,5}

Clinical signs of respiratory disease include:



If you have any suspicions, take the animal's temperature:

38.5°C
ideal body temperature.

39.5+°C
suggests **infection** (and probably lung damage) is already advancing.



References: 1. Welsh Dairy Heifer Report (2015) Hybu Cig Cymru. 2. Andrews, A.H. (2000) Calf pneumonia costs. Cattle Practice Vol 8 Part 2, 109-114. 3. APHA 2012-2017. 4. Timsit *et al.* Proceedings EBC, Marseilles, 2009. 5. Wolfger *et al.* (2015) A Systematic Review of Bovine Respiratory Disease Diagnosis Focused on Diagnostic Confirmation, Early Detection, and Prediction of Unfavorable Outcomes in Feedlot Cattle. Veterinary Clinics of North America Food Animal 31, 351-365.

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