

PNEUMONIA CONTROL IN DAIRY CALVES

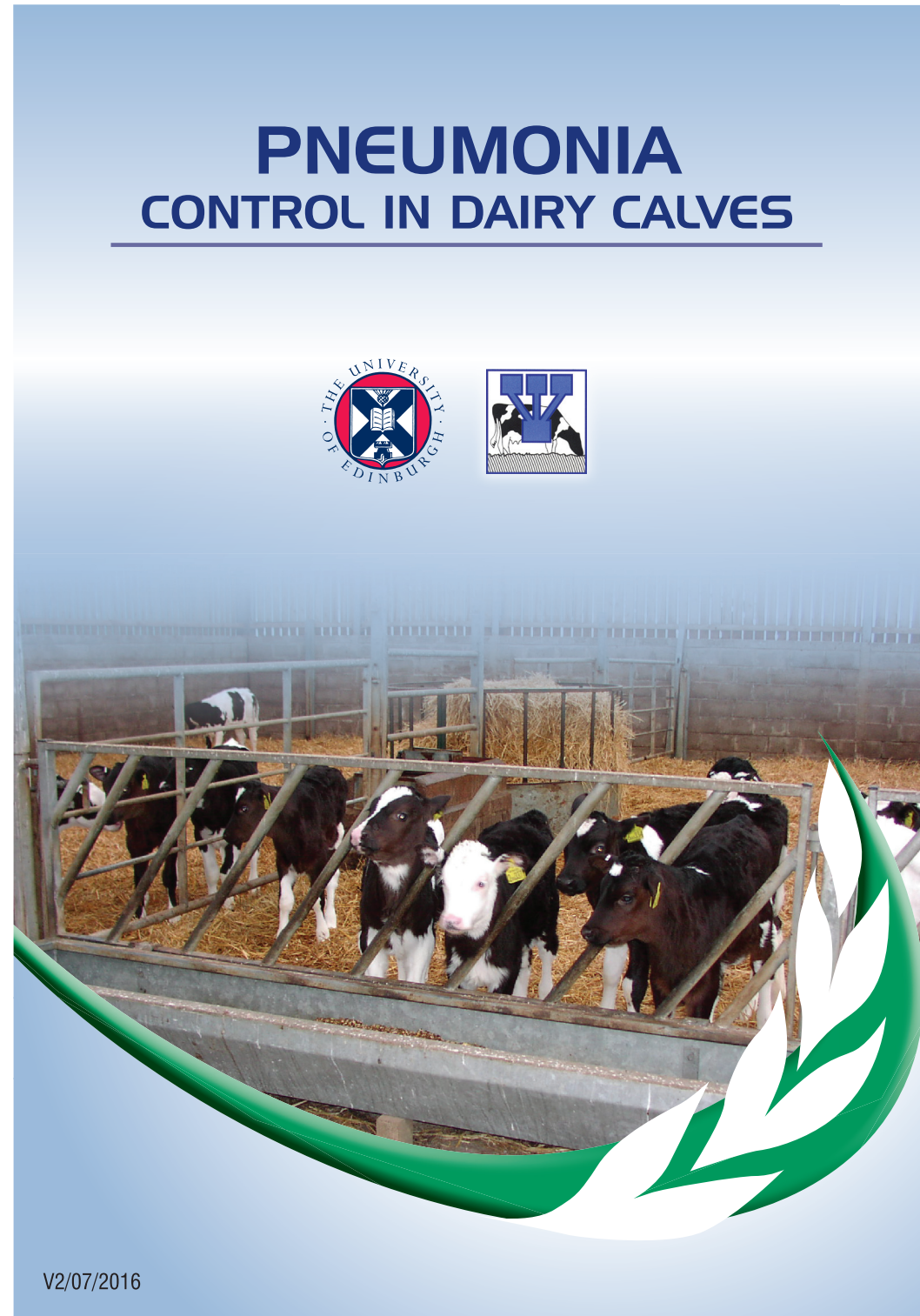


If you would like more information
contact our office or visit our website.



Royal (Dick) School of Veterinary Studies
Easter Bush Veterinary Centre
Roslin, Midlothian, EH25 9RG

Tel 0131 651 7474 DHHPS@ed.ac.uk www.ed.ac.uk/vet/dhpps



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- It is estimated that each case of pneumonia costs between £43 - £84 per affected calf.
- Pneumonia cases have been shown to have reduced liveweight gains and an increased risk of death, on top of the costs of drug treatment.
- There are also potentially longer-term impacts on reduced milk yield and fertility in later life.

What causes it?

- Pneumonia is a classic **multifactorial problem**, due to a combination of infectious diseases and management issues (such as stress, mixing of age groups, poor ventilation etc.) contributing to outbreaks of disease. Potential infectious causes include:
 - Viruses – RSV, IBR, PI3 and BVD
 - Bacteria – *Mannheimia haemolytica*, *Pasteurella multocida*, *Histophilus somnus*, *Mycoplasma spp.*
 - Lungworm – especially in animals that have been out for their first grazing season.

Diagnosis

Your vet can take samples from affected calves to see which pathogen(s) are involved by:

- Taking samples from the lungs using BAL (Bronchoalveolar lavage), or at a post-mortem examination.
- Blood sampling affected calves and then repeat sampling again 2-3 weeks later may help to pick up a rise in antibody levels following infection.

This is important to see which pathogens are present to target any control measures effectively.

TREATMENT

- Needs to be prompt and aggressive to avoid long-term damage.
- Antibiotics and anti-inflammatories may be advised by your vet.



PREVENTION OF CALF PNEUMONIA

Management

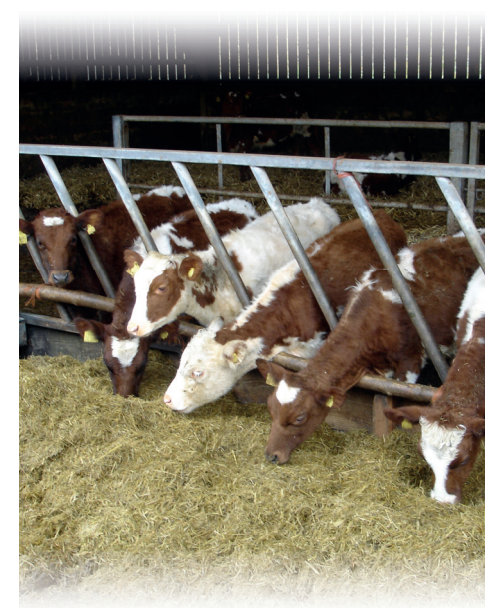
- Minimise stress such as mixing of different groups of calves, dehorning, unnecessary handling etc.
- Avoid shared airspace with different age groups, which will transfer infection to younger calves.
- Ensure good colostrum intakes to boost immunity in the first 3 months of life. For more information on colostrum management please refer to the “Calf and Colostrum” management handout.
- Feed an appropriate diet, ensure calves are eating at least 2 kg of concentrates prior to weaning.

Ventilation

- The three main problem areas are: too much moisture, too little fresh air and too much/too little air speed.
- **Reduce moisture:** provide good drainage to take water away, bed with dry straw, repair gutters etc.
- **Provide more fresh air:** this will kill airborne pathogens quickly. Avoid stale air and dust.
- General rules of thumb are to allow 0.04 m² outlet area per calf (usually via an open ridge), and that the air inlet area should be four times the air outlet area. Use mechanical/forced ventilation if necessary.
- **Proper air speed:** too much draught will increase the energy requirements of the calf and lead to chilling. Avoid draughts at animal height by using Yorkshire boarding or Galebreakers. Too little air speed will result in a lack of fresh air into the building.
- Check using smoke bombs. Does the smoke remain in the shed, or exit rapidly through the ridge?

Vaccination

- Vaccination can help in controlling calf pneumonia, but it is only part of the solution!
- There are a large number of different products available on the market that are effective against the main infectious causes of pneumonia. You need to know which infectious diseases are present on your farm to know which vaccine is going to be effective, and when they need to be given.
- Ideally vaccinate before the main period of risk, but this is not always possible. Some vaccines can be used from 9 days of age, which may aid in control of pneumonia in calves prior to weaning.
- Lungworm vaccine and/or strategic use of wormers can help build up an immunity to lungworm.
- Discuss with your vet which vaccine and vaccination regime is appropriate for your farm.



Discuss control and prevention of calf pneumonia with your vet