

# PNEUMONIA/ PLEURISY

## KEY MESSAGES

1. Pneumonia costs the sheep industry \$20 million dollars per year.
2. Losses at the abattoirs are due to trimming and condemnations.
3. On farm losses are due to reduced growth rates and deaths.

## What is pneumonia and pleurisy?

Pneumonia in sheep is an infection and inflammation of the lungs which in severe cases can extend to the outer layer of the lung, the pleura, and is called pleurisy.

## Disease on farm

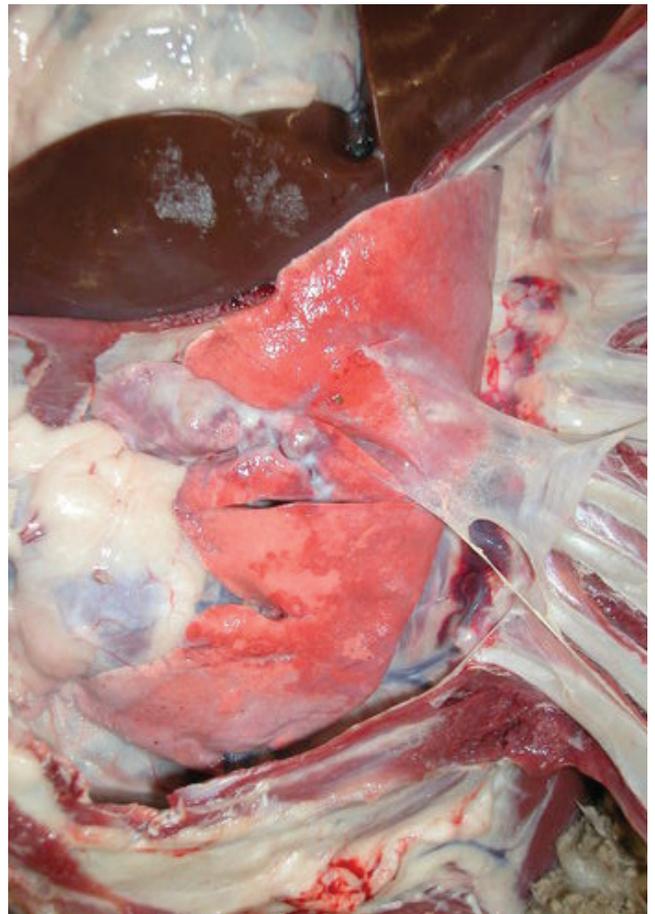
Pneumonia and pleurisy are the result of a complex and little understood interaction between the sheep, the causative agents which may be viral, bacterial or parasitic, and the environment. The clinical signs vary from very mild disease with an occasional cough that may go unnoticed to severe outbreaks of disease with associated deaths.

Pneumonia is initially caused by an infection with a bacteria (such as a mycoplasma) or virus or sometimes lungworm, with secondary bacterial invasion of the damaged lungs. The disease can be limited to isolated cases or results in outbreaks of disease typically in weaners over summer and is often called “summer pneumonia”.

Production losses are seen on farm with affected lambs being on average 3.3 kg lighter.

## Lungworm

In high rainfall areas, infestations of “lung worm” can cause pneumonia but its importance has decreased since the widespread use of highly effective drenches. Infection usually causes no signs in light infestations but in severe infestations, pneumonia can develop with secondary bacterial infections and physical obstruction of the airways.



*Image provided by Peter Windsor from the OLIVER database of the Faculty of Veterinary Science, University of Sydney*

## Inhalation pneumonia

Inhalation pneumonia can occur if sheep accidentally inhale dip fluid or drench. Post dipping inhalation pneumonia occurs with the dipping of tired or thirsty sheep, excessive dip retention time or overly vigorous dunking of heads in plunge dips. Incorrect drenching technique; holding the head above horizontal or drenching in the cradle increases the chance of aspiration of the drench. This usually results in a mild transient pneumonia.

## Risk factors?

There are a number of factors that are thought to predispose to pneumonia and pleurisy, including; extremes of temperature both cold and hot; nutritional and other stress and lung irritants like dusty feed.

## Disease picture at the abattoir

At the abattoir, adhesions of the lungs to the chest wall caused by pleurisy, lead to trimming of the ribs including the valuable rack, resulting in significant weight loss over the hook and a less valuable product. Although rare, in severe cases where there is evidence of septicaemia (blood poisoning) whole carcasses are condemned.

## Treatment

In outbreaks, treatment with antibiotics is possible if cases are detected early before there has been irreversible damage to the lung. Treatment with antibiotics should be done in consultation with your veterinarian and the choice of treatment will depend on the cause and withholding periods.

## Prevention

Pleurisy/pneumonia is caused by a complex interplay between, sheep, environment and causative agents. Prevention is aimed at minimising the possible risk factors for pleurisy/pneumonia including minimising stress, keeping sheep on an optimal plain of nutrition and good management/husbandry.

Pneumonia



Image provided by Nick Sangster from the OLIVER database of the Faculty of Veterinary Science, University of Sydney

## 1. Yarding/Mustering

- Drive sheep slowly
- Avoid overcrowding in yards and prolonged or unnecessary yarding
- Avoid yarding stock when conditions are hot, dry and/or dusty if possible (consider hosing yards prior to yarding to reduce dust)
- Avoid yarding stock in extremes of temperature (high or low)
- After yarding, let stock walk slowly back to paddocks at their own pace (don't drive them); and
- Ensure continual access to clean water.

## 2. Optimise stock health/minimise stress

- Avoid sudden diet changes
- Avoid or minimise the mixing of mobs
- Ensure good worm control and appropriate vaccinations
- Avoid and address any nutritional or mineral deficiencies
- Provide appropriate shelter from extremes of temperature
- Avoid dusty feed.

## 3. Drenching/dipping technique

- Be careful not to lift the sheep's head above horizontal when drenching (ensure new workers are shown how to drench properly) and avoid drenching in the cradle.
- Avoid plunge dipping tired or thirsty sheep.