

# SHEEP HEALTH CHALLENGES IN WET CONDITIONS

This article provides woolgrowers with advice on sheep health issues including scouring and worms, flystrike, footrot, clostridial diseases and more during wet conditions.



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## Scouring and worms

Lush, green, rapidly growing pastures can lead to scouring or acidosis in sheep. Providing roughage (hay, straw) to sheep on high-risk pastures can help reduce the risk of scouring and can reduce dag formation in ewes.

Worms are a major risk factor for scouring. Infections of black scour worm (*Trichostrongylus* spp.), small brown stomach worm (*Teladorsagia circumcincta*) and *Nematodirus* spp. (largely restricted to lambs) may cause scouring. Current seasonal conditions are highly conducive to the rapid build-up of worm larvae on pastures. If sheep are scouring, a faecal worm egg count can determine if worms are an issue.

Outbreaks of coccidiosis can also cause scouring. Outbreaks are typically sporadic. They usually occur in young sheep (less than 6 months old), and are associated with high stocking densities (overcrowding, particularly for sheep housed in feedlots) or other stressful situations such as inclement weather (e.g. prolonged cold wet conditions), poor nutrition, management procedures (e.g. weaning) or concurrent disease. A faecal worm egg count can determine if coccidiosis is an issue.

Scouring from bacterial enteritis is an important and emerging issue, particularly for weaned sheep in the high winter rainfall areas of southern Australia. Animals at a high stocking density that are exposed to stressful situations, such as poor weather along with other diseases or infections, are at risk of bacterial enteritis. During outbreaks, sheep with diarrhoea may be unwell with ill thrift and depression, and deaths may occur. Weaners with bacterial enteritis may need to be treated with antibiotics. Your veterinarian can provide advice on diagnosis and treatment of bacterial enteritis. Check out the AWI website for information on [managing sheep in containment areas](#).

The recently published [Dealing with Dag factsheet](#) provides more information on scouring in sheep.

The parasite, barber's pole worm (*Haemonchus contortus*), is not associated with scouring. Instead, infection with this blood-sucking worm results in death, anaemia, lethargy and collapse, failure to gain weight and bottle-jaw. A break in the wool may also occur in acute outbreaks when stock become critically anaemic. This season has seen a lot of barber's pole worm in southern Queensland and northern New South Wales, and more recently in southern regions. The WormBoss website contains [information](#) for producers in southern regions not used to dealing with barber's pole worm outbreaks.



Scouring sheep with severe dag (Source: B Besier).

## Flystrike

Scouring and dag are major risk factors for breech strike. In addition, warm wet humid conditions can increase the risk of body strike in sheep. The [National Flystrike Risk maps](#) on the FlyBoss website can help determine your current flystrike risk. In high-risk regions, sheep may need to be inspected more frequently between now and the first frost, at which time flystrike risk will decrease.

When inspecting sheep, be on the lookout for fleece rot, especially in animals with long wool. [Fleece rot](#) is caused by prolonged wetting of the skin. The wool becomes crusted, matted and often discoloured; sheep may be irritated and wool can develop a rubbed or 'pulled' appearance where sheep bite to relieve irritation. Animals with a dip between the shoulder blades or a dipped backline behind the shoulders ('pinched') are most susceptible.



Blowfly eggs associated with dag (Source: J Larsen).

## Other insect-related conditions

After heavy rain, standing water can lead to an increase in biting insects like flies, mosquitoes, and midges. In high numbers, these insects can be highly irritating and stressful for sheep.

Flies can transmit diseases like Pinkeye. Eye irritation from long grass or grass seeds can cause increased tear production, which attracts flies. The flies feed on infected secretions and move from animal to animal, spreading the bacteria. Animals may also carry infection in the nose and vagina, so discharges from these areas are also a source of infection for other animals. Contact a veterinarian for advice on control and treatment.

Bloodsucking insects (e.g. mosquitoes and midges) can transmit *Mycoplasma ovis* between sheep and lambs. *M. ovis* infects the red blood cells of sheep. The animal's spleen tries to clear the infection by destroying the diseased blood cells. Excessive destruction of red blood cells leads to anaemia, jaundice and death. Disease outbreaks can last for 14 to 28 days.

Historical surveys have shown that infection with *M. ovis* is widespread in Australian sheep. For example, it is estimated that 90% of Victorian sheep farms have *M. ovis* infection and 50% of adult sheep tested positive for infection. In Queensland, 68% of farms surveyed had the infection and infection within a flock varied from 2–80%. In Tasmania, 45% of adult sheep tested positive for infection.

Signs of *M. ovis* infection include poor-doers, anaemia (pale gums), jaundice (yellow gums), dark red urine and death (particularly following a stress event such as yarding).

Contact a veterinarian for advice on diagnosis and control.

## Footrot

Wet, warm conditions favour footrot.

Footrot is a contagious bacterial disease of sheep's feet. It has significant welfare and economic impacts. While the number of flocks with virulent (severe) strains of footrot has been reduced considerably over the last 20 years, footrot remains a serious disease. Less virulent strains can still cause considerable lameness and production loss.

Benign footrot is caused by infection with less virulent strains of the bacteria. It is seen in sheep grazing wet pastures under warm weather conditions and usually affects multiple sheep in the flock, of all age groups. Persistent wetting of the feet of sheep softens the hooves, allowing the bacteria to take hold.

Infected carrier sheep may remain a long-term source of infection for the flock, even after dry periods. Spread of the disease and lameness may occur when moist conditions return.

Benign footrot can cause severe lameness, particularly in rams and heavy sheep. Signs of lameness can be obvious or very subtle.



Signs of footrot are often more obvious during warm, wet weather (spread period). Lameness is usually the first indication of infection.

Watch for:

- Weight not borne evenly on all legs
- Uneven posture, even without obvious shortening of the stride
- Uneven stride or short steps
- Head bobbing in time with the short stride or the shoulder may drop
- Excessive flicking of the head
- Refusal to walk
- Obvious discomfort when moving or standing
- Bunny hopping or taking pressure off sore front feet by hopping on the back legs
- Carrying one leg when standing or walking
- Difficulty rising
- Refusal to stand.

When inspecting feet, use both hands to grasp the sheep's claws and open them to expose the skin. Normal feet have pale pink skin between the claws (coloured sheep will have dark skin). Inspect the feet for shape, swelling, discharge (i.e. pus) and odour. Putrid odour is a sign of infectious disease, such as footrot or foot scald.

To inspect the sole, lift the foot with one hand above the pastern (the area between the fetlock and the hoof), and look for separation of the sole from the wall of the hoof.

If footrot is suspected, contact a veterinarian or government livestock officer for advice on control and treatment. Footrot is a notifiable disease in some states.

Check on the AWI website for more [information](#) on footrot.

## Bacterial pneumonia and pleurisy

Sheep that are stressed due to adverse weather conditions or other diseases are more likely to develop respiratory disease.

Bacterial pneumonia and pleurisy (Summer pneumoniae, Ovine Respiratory Complex, ORC) is one of the main diseases globally causing mortality, poor animal welfare and reduced incomes on sheep farms and in lamb feedlots.

When stress from adverse weather conditions, mixing groups of lambs and sheep, overcrowding and transport occur on top of an existing *Mycoplasma ovipneumoniae* or viral infection, the sheep's immune system is suppressed. When this happens, other bacteria that normally live inside the nose and throat of ruminants without causing harm, colonize the trachea and bronchi, where they grow and secrete toxins. These toxins cause inflammation and tissue destruction, and acute bronchopneumonia develops.

Current research is revealing that infection is widespread in Australian sheep flocks, with infection spreading from chronic carrier ewes to lambs soon after birth.

Clinical signs of respiratory disease in sheep include poor growth rates, reduced exercise tolerance, laboured breathing and/or mouth breathing, coughing, nasal discharge, rectal prolapse if docked too short, and death.

Infection can be detected by [collecting nasal swabs](#) from sheep and lambs. Animals with bacterial pneumonia may require treatment with antibiotics. Your veterinarian can provide advice on diagnosis and treatment of bacterial pneumonia and pleurisy in sheep.

## Clostridial diseases

Sheep are at increased risk of Clostridial diseases when grazing lush, green pastures. Rapidly growing weaned or unweaned lambs are at greatest risk.

Clostridial diseases can be easily and effectively prevented by ensuring all sheep and lambs are up to date with their clostridial vaccines.

After heavy, flooding rain, sheep grazing rotting vegetation may be at risk of botulism. Botulism is caused by sheep inadvertently eating the botulism toxin. The toxin produces progressive paralysis that is usually fatal.

Standard clostridial vaccines do not protect against botulism. Risk is best managed by preventing sheep grazing rotting vegetation in previously flooded areas.

## Further information

- [www.wool.com/sheep/welfare](http://www.wool.com/sheep/welfare)
- [www.wool.com/land/flood-recovery-resources](http://www.wool.com/land/flood-recovery-resources)
- [www.flyboss.com.au](http://www.flyboss.com.au)
- [www.wormboss.com.au](http://www.wormboss.com.au)