



Victorian Farmers
Federation
Livestock Group

Livestock Factsheet

» Scabby Mouth

What is scabby mouth?

Scabby mouth (pustular dermatitis, orf) is a very contagious viral disease of sheep and goats, generally affecting lambs and kids in their first year of life. The disease causes scabs and pustules usually around non-woolled areas such as the mouth, udder, legs, feet and the poll of the sheep. Scabby mouth can impact productivity through reduced body weights of lambs.

Scabby mouth is not a notifiable disease in Australia. Scabby mouth is a zoonotic disease occasionally infecting humans.

Impacts of scabby mouth

Scabby mouth is a highly infectious disease affecting all sheep. However, lambs are at greatest risk of infection, with morbidity rates being as high as 100% in some flocks. Scabby mouth can impact the productivity of your flock in several ways, including:

- Reduced lamb body weights; lambs affected around the mouth may be unable to feed for days.
- Death in young lambs by starvation in extreme cases. Scabby mouth alone does not cause death, however it can cause lambs to be reluctant to feed and depress growth rates rapidly.
- Increased susceptibility to secondary bacterial infections in severe cases.
- Mastitis in ewes due to lesions on the teats and udder.
- Reduced semen quality in rams due to the thickening of the scrotal skin from lesions, impacting on the cooling mechanism of the testes.
- Lameness from infection around the coronet and pasterns.

What does it look like?

Sheep and goats infected with scabby mouth will first develop small, inflamed areas which then begin to weep a clear fluid. The mouth and feet are regularly affected; however legs, teats, the udder and the poll of the sheep can be infected also. The first signs of infection are usually seen around the corner of the lips. In severe cases scabs can form across the whole of the lip, extending into the mouth, tongue and nostrils.

Once weeping occurs the fluid will harden into a thick brown scab, firmly attached to the body. The scabs lift in one to two weeks, exposing the raw skin which generally heals rapidly, with skin returning to normal within four to six weeks after initial infection.

Lesions may also develop around the udder, predisposing the ewe to mastitis. These lesions can be painful for the ewe and may not let the lamb suckle. Scabby mouth can occur around the coronet and pasterns, leaving the animal susceptible to secondary infections such as dermatophilosis, resulting in severe lameness.

Figure 1 Scabby mouth infection in a young lamb (Photo courtesy of DPI Victoria).



Figure 2 A severe infection of the mouth (Photo courtesy of Pfizer Animal Health).



Spread of Infection

The virus can survive in the environment for years, favouring dry sheltered areas. The organism responsible can also persist in a flock for long periods of time, living on the wool and skin in carrier animals such as on the poll of rams.

The virus will remain on the carrier animal, not causing infection until it gains entry to the body through broken skin caused by injuries. The most frequent cause of injury occurs when animals graze in paddocks containing thistles and burr or consuming hay containing a lot of thistle or burr. Grazing of stubble also increases the susceptibility of infection due to the greater incidence of injuries to the mouth and feet. Infection of the feet often occurs when sheep are running in wet lush pasture with thistles.

Can animals develop immunity?

Yes, sheep that recover from infection develop lifelong immunity against the disease. Immunity is only developed against severe infection. Stock may still be vulnerable to reinfection, though the infection lasts for a shorter period of time and affects are mild or may go unnoticed.

Treatment

Treatment is not often viable, thus grazing management strategies and vaccination are best forms of protection against the disease. The virus normally runs its course and clears without treatment in three to four weeks. In severe cases of scabby mouth, sheep may require treatment to combat secondary infections.

Control

Strategic grazing practices and vaccination is the best form of prevention. Effective grazing management strategies include:

- Move infected stock onto pastures that present a low risk of injury.



- Keep pastures clean and free of thistles and burrs.
- If possible, avoid feeding hay containing thistle or burr and grazing stubble.

Vaccination

Pfizer's Scabigard® is the only scabby mouth vaccine available in Australia. The live vaccine is commercially available from Pfizer or your local rural supplier. The vaccine generates immunity by supplying the animal with a mild form of the disease. It is recommended that lambs be vaccinated at the time of lamb marking and pregnant ewes not vaccinated within six weeks of lambing.

Vaccination should only be considered on properties where scabby mouth is an issue. If sheep from an uninfected property are vaccinated, this will introduce the virus on to the property. This may then require the establishment of a vaccination program to protect future stock, resulting in unnecessary costs to the producer.

Scabby mouth vaccination is a prerequisite for some export markets.

General principles to consider when vaccinating include:

- When starting a vaccination program, all sheep and lambs should be vaccinated, to contain the spread of infection. Vaccinated animals can act as a source of infection for non-vaccinates.
- Handle and store the vaccine according to label recommendations.
- Sterilising vaccination equipment before reuse. A specific applicator (Pfizer's Scabigard® Applicator) is required to administer the Scabigard® vaccine.
- This vaccine is different to other vaccines, as it has to be scratched into the skin. Most products require subcutaneous or intramuscular injection with a needle.
- Sheep need to be scratched on the bare skin inside the foreleg or side of the brisket to ensure a successful vaccine take. The scratch should be administered at a 45 degree angle to the skin, 4-5 cm in length and cause ample skin damage without drawing blood.
- The vaccine contains a blue dye, allowing the operator to see that the vaccine has been distributed along the entire skin scratch.
- Sheep or lambs must 'take' the vaccine to achieve adequate immunity against the disease. A successful vaccine 'take' is determined when animals display a line of pustules along the scratch line, one week following vaccination.
- Animals that fail to 'take' the vaccine should be revaccinated. Poor vaccination technique or improper storage and handling of the vaccine may lead to an unsuccessful 'take'. Sheep that are already immune to the disease may fail to 'take' the vaccine.
- Antiseptics used in lamb marking should not be allowed to contaminate the vaccination site as this will destroy the vaccine.

- Immunity from the vaccine generally develops in two weeks.
- Care should be taken when vaccinating as Scabigard® is a live vaccine and scabby mouth is transmissible to humans. Seek medical attention if you scratch yourself with the vaccine.
- Contact your local vet for assistance on implementing an effective vaccination and control program.

For further information, please contact the VFF Livestock Group on 1300 882 833 or by email to Jacinta Pretty at jpretty@vff.org.au

Further Links

Department of Primary Industries Victoria

<http://www.dpi.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/sheep/scabby-mouth-orf-a-disease-of-sheep-and-goats>

Department of Primary Industries New South Wales

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/179835/scabby-mouth.pdf

Pfizer Animal Health

<https://pfizeranimalhealth.com.au/products/275/scabigardreg.aspx>

Original Author, Jacinta Pretty (VFF Livestock Project Officer), Original Version Published in November 2012.

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Take Home Messages

- Scabby mouth is a very contagious viral disease of sheep and goats, causing reduced lamb body weights and mastitis in ewes.
- Treatment is not often viable, thus grazing management strategies and vaccination is the best method of protection against the disease.
- Scabby mouth vaccination is a prerequisite for some export markets.



Victorian Farmers
Federation

Victorian Farmers Federation
Farrer House, Level 5, 24 Collins St
Melbourne, Victoria, 3000
Telephone: 1300 882 833
Fax: 03 9207 5500
VFF@VFF.org.au
www.VFF.org.au