Causes of rubbing in sheep

Brian Horton, University of Tasmania

Rubbing, biting and itching sheep are relatively common problems, but the correct cause is not always identified. If wrongly diagnosed this may subject the flock to expensive and unnecessary treatments.

The LiceBoss Rubbing Tool may help to decide the most likely cause of the rubbing and these notes may assist in considering the method of approach and the type of wool damage associated with different causes of rubbing.

Lice infestations

The rubbing and/or biting behaviour of some sheep in a mob will indicate a new lice infestation before most people will be able to find lice on affected sheep. Some sheep will be rubbing on fencing or biting and scratching and may show signs of matted or pulled wool. Sometimes the only obvious sign is wool on fences, while in other cases sheep are very obviously severely irritated. Lice are a common cause of rubbing, but immediate treatment should not be undertaken unless lice are actually seen on the sheep. If you don't find lice, consider other possible causes, but keep checking at regular intervals.

Finding lice

Closely inspect at least 10 sheep by parting the wool at five sites on each side of the body, including neck, shoulders and flank. Inspect the sheep that appear to have the worst wool damage. For light infestations with little wool damage you may have to inspect more sheep before lice are found. You can stop as soon as you find any lice, see the LiceBoss Note: Monitoring sheep for lice.

You need good eyesight to find lice as even adult lice are only 2 mm long. Immature lice are smaller, paler in colour and even more difficult to see. Lice live close to the skin and move away from light. If you use glasses to read the telephone book you will need them to see lice. If you have never seen lice before it may be hard to recognize them. Ask for help from someone who has seen lice before.

Check treatment since the previous shearing

Any treatments for lice may have suppressed louse numbers without killing all of them, so that the number present may be too low to detect. Check again every two months until shearing. Some flystrike treatments (e.g. ivermectin) may also suppress lice without eradicating them.

Wool length

Lice numbers are low immediately after shearing and lice are hard to find in less than 6 months wool. If no lice are seen you may need to check again about 6 months after shearing and again every 2 months thereafter.

Contact with suspect sheep in the last 4 months

Sheep may begin to rub about 2 months after contact with lousy sheep, but it can be another 2 months before lice are easily found on the sheep. This is because the lice population builds slowly, over a number of months. If no lice are seen, you should check again in another 2 months.

Rubbing sheep are unlikely to have lice if all of the following apply

- 10 or 15 sheep were inspected at 10 or more partings and no lice were seen.
- The person inspecting has good vision, inspected in good light and knows what lice look like.
- The sheep were inspected at least 8 months after the previous shearing.
There were no pesticide treatments that might have affected lice since the previous shearing.

There were no strays or purchased sheep entering the property in the last 6 months.

You can find some other cause for the wool damage or rubbing.

**Itch mite**

Itch mite can make sheep itch in a similar way to lice, but they are rarely a problem. Any of the macrocyclic lactone (ML, ‘mectin’ group) drenches will kill itch mite. Dips containing rotenone or sulphur will also kill itch mite.

If none of these treatments has been used in the last 12 months then skin scrapings can be taken to find the mite by microscopic examination. However, scrapings need to follow specific methodology and may still be a fairly insensitive test as a negative result does not necessarily exclude itch mite.

See the LiceBoss Note on [Itch mite in sheep](https://www.liceboss.com.au) if they are a possible cause of rubbing.

**Fleece conditions**

**Mycotic dermatitis (‘dermo’ or ‘lumpy wool’)**

This is a bacterial infection causing hard crusty scabs that go down to skin level, which can cause irritation to the sheep and give the fleece a rubbed appearance. This condition will cure itself, but animals with extensive lesions over the backline and sides may require separation from the main flock and treatment with an effective antibiotic. Following healing of the skin lesions, the scab will grow away from the skin in 6–8 weeks.

**Fleece rot**

This is a bacterial dermatitis 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.

**Non-infectious causes**

**Grass seeds**

Look for grass seeds down to skin level. Barley grass, spear grass and erodium (‘geranium’, or ‘corkscrew’) seeds work their way down to skin level and penetrate the skin to cause irritation and rubbing or biting. Grass seeds need to be at the base of the wool staple or actually penetrating the skin to cause irritation. This is mostly seen in late spring or summer.

**Wool break**

A break in the wool can give the appearance of pulled wool, since wool may be rubbed off on fences or lying on the ground. However, affected sheep do not show the typical rubbing and biting behaviour of lousy sheep since there is little or no cause of itching. Wool breaks may occur after severe nutritional stress or after diseases such as flystrike or footrot. The wool will be weak over most of the fleece of an animal with an individual illness or be widespread when a whole flock is subject to the same stress, e.g. poor nutrition.

**Sunlight exposure**

**Photosensitivity**

Irritation from sunlight causing swelling of the tissues of the head can lead to sheep rubbing their faces and ears on the ground. Typically, the ears will be swollen with fluid and appear to hang down.
Facial eczema, which is a severe form of photosensitivity caused by liver damage, can result in extensive skin damage.

**Sunburn**

Backline dermatitis after shearing, with or without backline lice treatment, can cause skin lesions and loss of fleece. The specific cause is not known but the lesions appear to be a type of sunburn. Predisposing factors are thought to be sheep in good to fat body condition that have been held in yards or turned out into paddocks without shade following shearing. Cases have most commonly been reported following hot weather at shearing.

**Genetic factors**

Naturally fleece-shedding breeds of sheep and, to some extent, their crosses will lose their wool in spring, giving a rubbed appearance. Wool loss may continue over several months. Some itchiness and rubbing may occur. If this occurs at other times of the year or in only a few sheep, then check for the other conditions listed here, since shedding sheep can also have lice or other diseases.

**Exotic diseases**

Check for unusual deaths, illness, nervous signs (e.g. convulsions, staggering gait) or skin lesions (e.g. lumps or sores). Consult a veterinarian if the cause is not obvious.

Some exotic diseases such as scrapie, sheep pox, lumpy skin disease and Aujesky's disease can cause itchiness and rubbing. Rapid diagnosis is critical to minimise the impact of an exotic disease. Owners are legally obliged to report cases when an exotic disease is suspected.

**Other causes**

There are some other rare causes of rubbing or wool loss. Seek advice if more than one or two sheep are affected and there is no obvious cause.

**Combinations of causes**

Since lice are relatively common, they may occur at the same time as one of the other conditions described above. So, do not assume that lice cannot be present even if other causes, such as grass seeds, are identified. However, if the behaviour and type of wool loss is more consistent with some other cause, then the rubbing can be attributed to that cause and should not be used as an indicator that lice control is needed.

This note should be used together with the LiceBoss Rubbing Tool.

*Acknowledgement:* This note is based on a Farmnote by Don Moir, Department of Agriculture, WA.

*Disclaimer:* The information provided in this publication is general information only and readers should confirm information from an appropriate and relevant source before making business or commercial decisions based on this information. Sheep CRC Limited and Australian Wool Innovation Limited will not be liable for any loss or damage suffered by a reader arising from the reader’s reliance upon the contents of this publication.

*Copyright:* Australian Wool Innovation Limited. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under copyright legislation, no part may be reproduced or re-used for any commercial purpose whatsoever without the written permission of AWI Web Manager, Australian Wool Innovation Limited, Level 30, HSBC Centre, 580 George St, Sydney NSW 2000, GPO Box 4177, Sydney NSW 2001.