



## Monitoring sheep for lice

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Regular monitoring of mobs for lice and early detection when an infestation begins are key elements of any well-planned lice control program. Careful inspection of sheep for lice can help prevent the introduction of new infestations, save production loss, reduce residues and save costs by avoiding unnecessary treatments.

### When to inspect for lice

#### Current sheep

All mobs should be checked for lice at least twice each year. Useful opportunities for monitoring are when sheep are yarded for drenching, crutching, marking and shearing or other management procedures. Any sheep seen with rubbed fleece or pulled wool should be checked as a matter of urgency. It is also a good idea to ask your shearers and shed hands to look out for lice at shearing. Make sure to check **every** mob on your property, including the killers and rams.

#### New sheep

All newly purchased sheep, agisted sheep or sheep returning from other properties should be inspected before release onto the property. New rams can pose a significant risk, but are generally introduced only in small numbers; therefore, an automatic policy of shearing and treating rams for lice on arrival (8 or more weeks before joining) is recommended.

Lice are extremely difficult to find when in low numbers, so even if lice can't be found it is prudent to keep newly introduced sheep well separated from the rest of the mob until you are sure they are free from lice.

#### Stray sheep

Any stray sheep found in the mob or returned from neighbours should be closely examined. Some owners prefer not to risk the chance of lice and to dispose of stray sheep rather than return them to the mob.

Lice are difficult to find soon after shearing. Even if sheep have not been treated, it is unlikely that lice will be easily found more than three months off-shears. If sheep have been treated, but lice not eradicated, it may be more than six months before lice can easily be found.

### How to monitor for lice

Look for sheep showing signs of rubbing or biting at their fleece.

Rubbing is a very powerful indicator of infestation and sheep will begin to rub with quite low lice numbers. If sheep are not rubbing, even if lice are present, they will be in such low numbers that it will be almost impossible to find them by random inspections. Therefore, time is most efficiently used by carefully going through the mob trying to identify any sheep with rubbed or pulled wool.

Signs of rubbing are most likely along the sides of the sheep, as this is from where most spread of lice between sheep occurs and where lice are most prevalent. This is also the area on the body that sheep can easily reach to bite at the wool. Pulled strands of wool on the flanks from sheep biting are very often an early indication of lice.



Tufts of wool caught on fences or other structures usually indicate that sheep are rubbing and should be mustered for inspection.



If a rubbing sheep is found, closely examine this sheep to see if lice can be found. Many other things can make sheep rub and it is essential to see live lice to diagnose an infestation.

Other causes of rubbing include grass seeds, fleece rot, lumpy wool, flystrike and itch mite. Sheep with tender wool or frequently walking through bush or long grass and some breeds that shed their fleece may also appear to be rubbing. Read the LiceBoss Note: [Causes of rubbing in sheep](#) or use the [Rubbing Tool](#) in Liceboss to help to diagnose other causes of rubbed fleece.

**Image: Lousy sheep biting at flanks.**  
**Source: Deb Maxwell**

## Identifying lice

Sheep lice are small insects 1 to 2 mm in length with a broad reddish head and a cream coloured body. Adult lice have reddish brown stripes across the body but these stripes are absent in young lice (Figure 1). Further information on lice can be found in the LiceBoss Note, [Biology of sheep lice \(\*Bovicola ovis\*\)](#).

If your eyesight is good you will be able to see lice on sheep. However, if you need glasses to read a telephone book, you will also need them to see lice.

Two other species of lice can sometimes also infest sheep, but they are relatively rare. These species are sucking lice, usually found on the legs, the face or on the scrotum in rams. They are generally larger than the common sheep louse and appear bluish in colour. Itch mites can also cause rubbing but are too small to be seen without a microscope. Itch mites are also rare because of widespread use of macrocyclic lactone drenches, which are effective against them.



**Figure 1. Sheep lice.**  
**Source: Peter James**



## How to inspect a rubbed sheep for lice

Lay the sheep on its side in a well-lit position, part the wool and look for lice.

If you need glasses to read the telephone book, make sure you use your glasses when looking for lice. A magnifying glass can help.

Check at least 20 wool partings on any rubbed sheep; partings should be at least 10 cm long. The more sheep you inspect, the more chance you have of finding lice if they are present.

Once you have found one live louse you can stop; there will be many more lice that you can't find. All sheep should be treated after the next shearing.



**Figure 2: Sheep showing rubbing caused by lice.**

Source: Peter James

## Where to find lice

Shearing severely reduces louse numbers. Sixty to eighty percent of lice may be directly removed by shearing and many more will be killed soon after by exposure to environmental effects, particularly high temperature and high solar radiation. After shearing, most lice will be found in poorly shorn patches, particularly in the neck folds, on the lower flanks and in longer wool left at the top of the legs, where they can escape the effects of the weather.

When the fleece gets longer, lice may be found anywhere on the wool-bearing areas of sheep. They tend to be in highest numbers along the sides and sometimes on the back.

Most lice are found near the skin. However, they move away from the skin and up into the wool when the fleece is shaded, for example when sheep are in a shed or in close contact with other sheep. This is how they spread. When the fleece is parted in bright light, lice will tend to move away from the light, into the wool.

## The probability of finding lice

In the early stages of an infestation, only a few sheep in the mob will have lice. To find them you have to first select one of the infested sheep and then find the lice on that sheep.



### Selecting the right sheep

If 10% of sheep in the mob have lice and you select one for inspection at random there is only a one in ten chance of selecting an infested sheep. We now know that sheep can start to rub with as few as 100 lice. Therefore, selecting a rubbing sheep for inspection significantly increases the likelihood of finding lice if they are present.

### Finding lice on this sheep

If a sheep has 100 lice, this is equivalent to about only 1 louse seen in every 20 partings. Because lice occur in groups and are not randomly spread over the sheep, inspecting even 20 parts will only give about a 60% chance of finding lice on this animal. Inspecting more rubbing sheep will significantly improve the chance of finding them.

### The bottom line

Looking for sheep starting to rub greatly improves the chance of finding lice if they are present, but even if lice are causing rubbing you may have to look very carefully to find them.

## What to do if lice are found

If possible, separate the infested mob from other mobs on the property to prevent further spread.

All sheep on the property should be treated at the next shearing. Depending on the level of infestation present and time until shearing, it may also be desirable to apply a long wool treatment. Consult the [Long Wool Tool](#) to help with this decision. Remember, if a long wool treatment is used it will control, but not eradicate, lice. All sheep will need to be treated again after they are shorn.

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