



Finding the cause of rubbing sheep

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Rubbing, biting and itching sheep can be a frustration and a diagnostic dilemma for sheep producers. Although it is a relatively common problem, the specific cause is not always identified, and the flock may be subject to ad hoc, expensive and unnecessary treatments.

A structured approach should be used to identify the cause of rubbing in sheep. You should consider the most likely causes first, and if this proves negative then progressively work through the other possibilities.

The Problem: sheep are rubbing or biting with signs of matted or pulled wool. Work through the Diagnostic checklist to arrive at the most probable cause.

External Parasites

Lice

- Closely inspect a minimum of 10 rubbing sheep by parting the wool on five sites on each side of the body, including neck, shoulder and flank. You need good eyesight in good light as lice are only 2 mm long and close to the skin. For light infestations it is advisable to increase the number of sheep checked to 20.
- Were the sheep treated for lice at or since shearing?
 - Φ If yes, numbers of lice will be low, and difficult to find.
 - Φ If none seen, inspect at least every two months until shearing.
- Have the sheep got less than 6 months wool?
 - Φ If yes, numbers of lice are probably low, and may be difficult to find. For the first 3-4 months post shearing concentrate the inspection to areas under the neck.
 - Φ If none are seen, repeat the inspection at least every two months until shearing.
- Was there contact with suspect sheep less than 4 months ago?
 - Φ If yes, numbers of lice may be low, particularly if this was during summer.
- If none are seen, repeat inspection at least every two months until shearing.
- Do they have over 6 months wool and have not been treated since last shearing?
 - Φ If yes, there is a good chance of finding lice if present.
 - Φ If none are seen, repeat inspection every 4 – 6 weeks until shearing
- Rubbing sheep are unlikely to have lice **if all of the following apply;**
 - Φ You have inspected at least 10-15 rubbing individuals very closely and have seen no lice
 - Φ You, or the person inspecting, have good vision close up, have inspected in good light and know what lice look like
 - Φ 8 months or more of fleece growth is present
 - Φ There have been no lice treatments or fly treatment with an effect against lice at or since the previous shearing
 - Φ Any suspect contact (eg stray sheep, introduced sheep) was over 6 months ago
- If any of these circumstances do not apply, lice remain a possible cause. Keep inspecting every 4-6 weeks until shearing.



Rubbing and biting in a sheep with heavy lice infestation

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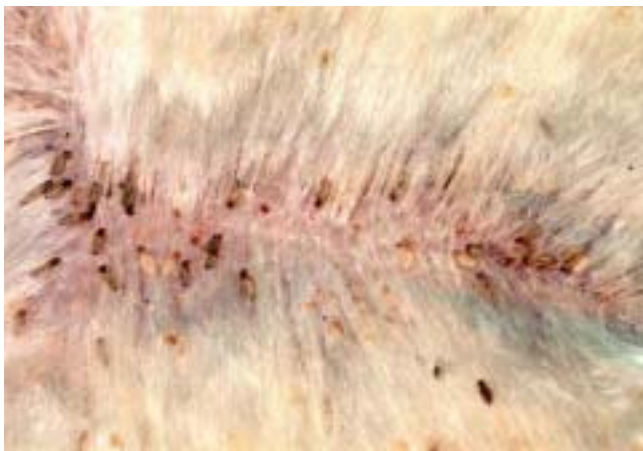
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Itchmite

- Have either of the following treatments for itchmite been applied in the previous 12 months?
 - Φ Any of the ML (macrocyclic lactone, or 'mectin' group) worm drenches that will control itchmite
 - Φ Dips with rotenone or sulphur that give some itchmite control

If no treatment effective against itchmite has been applied in the last 12 months, skin scrapings can be done to try to find the mite by microscopic examination. This is not a very sensitive test, so a negative result does not eliminate itchmite as the cause.

Alternatively, try drenching several affected animals with an ML drench twice, three weeks apart, then look for any improvement four to six weeks after the last drench. Note that while any fleece derangement will remain, the degree of rubbing and biting should diminish.



Close up view of a heavy lice burden

Fleece conditions

Mycotic dermatitis ('lumpy wool')

Hard crusty scabs that go down to skin level can cause irritation to the sheep. This condition will self cure given fine weather, however very extensive lesions over the backline and sides may necessitate treatment with an effective antibiotic. Following antibiotic treatment, the scab will grow away from the skin in 6 – 8 weeks, allowing shearing to take place.

Fleece rot

This is a bacterial dermatitis caused by prolonged wetting of the skin. The wool becomes crusted, matted and often discoloured. Animals with a dip between the shoulder blades or a dipped backline behind the shoulders (known as 'pinched') are most susceptible. Sheep with this condition should be culled.

Non-infectious causes

Grass seeds

Are there any 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. This is mostly seen in late spring and summer.

Is there a wool break?

A break in the wool can give the appearance of pulled wool.

Wool breaks follow nutritional stress or diseases such as fly strike or severe foot abscess. It will be over the entire fleece and can be easily checked.



Ewe with wool break from severe foot abscess

Sunlight exposure

Photosensitivity (irritation from light 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 hanging down. Facial eczema, which is a severe form of photosensitivity caused by liver damage, can result in extensive skin damage.

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. Cases have most commonly been reported following hot weather at shearing.

Genetic factors

Naturally fleece shedding breed of sheep

At the seasonal (spring) time for natural fleece shedding, some itchiness and rubbing may be shown.

If yes, continue to work through the checklist, and if no other cause of rubbing is identified, fleece shedding will be a likely reason in these breeds.

Exotic Diseases

Are there unusual deaths, illness, nervous signs (e.g. convulsions, staggering gait) or skin lesions (e.g. lumps or sores) associated with rubbing?

Consult a veterinarian immediately if the cause is not obvious.

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

See Bulletin 4394 Exotic Diseases Sheep and Goats for more information

Diagnostic checklist

Tick the boxes that apply and follow the directions.

Section 1: Is it lice?

Are conditions suitable for finding lice if they are present?

- You have good close vision and can recognise lice
- 8 months wool growth or more present
- No treatments effective against lice at or since the last shearing
- Any contact with strays or introduced sheep greater than 6 months ago

4 boxes ticked = good chance of finding lice if present

Less than 4 boxes ticked = may not find lice even if present

Inspect at least 10 (and preferably more) rubbing sheep carefully

- Lice present = PROBABLE CAUSE
- Lice not found = 4 boxes ticked = unlikely to be lice move to section 2
<4 boxes ticked = inspect again in 2 months

Section 2: Is it itchmite?

ML drench within the last 12 months?

- Yes = unlikely to be itchmite, move to section 3
- No = go to next question

Treated with rotenone or sulphur dips in the last 12 months?

- Yes = unlikely to be itchmite, move to section 3
- No = go to next question

Test some affected animals with an ML drench (see text). Is there any improvement?

- Yes = PROBABLE CAUSE
- No = unlikely to be itchmite move to section 3

Section 3: Is it a fleece condition?

Is there evidence of lumpy wool?

- Yes = possible cause
- No = go to next question

Is there evidence of fleece rot?

- Yes = possible cause
- No = go to section 4

Section 4: Is it non infectious?

Are there grass seeds down to skin level and penetrating the skin?

- Yes = PROBABLE CAUSE
- No = go to next question

Is there a wool break?

- Yes = PROBABLE CAUSE
- No = go to next question

Are there signs of photosensitivity (see text)?

- Yes = possible cause
- No = go to next question

Are there signs of backline dermatitis?

- Yes = possible cause
- No = go to section 5

Section 5: Genetic factors

Are they a naturally fleece shedding breed of sheep?

- Yes = possible cause
- No = go to section 6

Section 6: Exotic diseases

Are there unusual signs of sickness, nervous signs, skin lesions or deaths associated with rubbing sheep?

- Yes = CONTACT A VETERINARIAN IMMEDIATELY
- No = Wait for 6 weeks, then start at the beginning again OR seek professional help.

