

Scab or lice...

can you afford to guess?

Lancashire-based small ruminant veterinary consultant Judith G. Charnley has seen too many cases where skin ailments have been treated incorrectly. The only way to know for sure is to have a skin sample taken...



Results:

Main picture - Not affected, loss of wool due to prolapse.

Top picture - A skin scraping showed Sheep Scab (also had hypothermia from wool loss)

Bottom picture - Scab and lice in young lambs. Young lambs show more clinical signs than older sheep.

Sheep Scab is the most misdiagnosed and incorrectly treated skin condition of sheep. A huge amount of time and money is wasted by farmers who misguidedly treat their flocks for the wrong skin conditions. Sheep Scab and infestations with lice are the most frequently confused.

Scab is caused by a tiny parasitic mite which lives on the skin surface called *Psoroptes ovis*. It looks like a crystal of brown sugar. The condition is highly contagious, causes intense irritation, scratching, nibbling and wool loss. Some sheep spend so much time rubbing that they do not eat, lose weight, start to have epileptiform fits and ultimately die.

However, not all sheep infested with scab mites will scratch or rub. When deciding on what treatment to use for sheep scab you must remember that all sheep must be treated. Don't miss out any of your flock – they will all be infested, even though not all are scratching.

Failure to treat the condition properly is a huge welfare concern in the North West.

A farmer called me out earlier this year because he thought his treatment for lice was not working. He had spent the previous three days treating his flock of 2,000 ewes using pour-on products. He had spent several thousand pounds on drugs, hiring help to gather from the moors and labour to treat the animals. When I visited I took skin scrapings from several of the sheep. Within a couple of hours I reported back to him

that sheep scab was the cause of the wool loss - not lice. The sheep were treated with the correct products and showed signs of improvement within the next few days.

New research

In June I attended the NSA's North Sheep meeting up in Hexham. One of the most interesting stands was that of the Moredun Research Institute from Edinburgh. They have been doing a lot of work on sheep scab and its early detection.

Early infestation with the sheep scab mite shows few clinical signs. It can take up to four weeks before signs such as wool loss and scratching are noticed. During this time, even though the sheep appears to be normal it can still transmit disease. Many sheep can be infested before you even notice any signs.

The Moredun have been working on an ELISA blood test which can detect host antibodies specific to antigens found in sheep scab mites early in the disease, together with an on farm dipstick test. Both tests are still in the experimental stages at the moment but the diagnostic blood test should soon be on the commercial market. These promising new developments will help sheep farmers in the North West diagnose skin conditions earlier and more accurately.

Whilst we eagerly await the commercial availability of these products we must rely on traditional clinical observation of the sheep flock and ensure skin scrapings are taken correctly

If your sheep are scratching, rubbing or losing wool, always

Continued...

consult your vet for advice and an accurate diagnosis. Sheep scab and louse infestations are often confused. Both conditions require completely different treatments.

Taking a skin scraping rather than a wool sample is the only way, at present, to achieve a correct diagnosis and you should ask your vet to do this. The parasites do not tend to live in the area which has already lost wool, but more around the edges. Sheep Scab is a condition which tends to occur mainly in winter, from October to March. Farmers and vets used to think that sheep scab mites disappeared in summer. This is now known not to be the case. Mites survive best in fully fleeced sheep as they need a moist environment in which to thrive. In summer they move to sweeter areas such as between the hind leg and udder, tail and elbow area. Sheep Scab mites can survive off the sheep and be infestive to other sheep for up to 17 days. If sheep rub on posts or walls where scabby sheep have been within the last few days they can catch sheep scab.

There are two species of lice in sheep in Great Britain and both can be seen with the naked eye. The chewing louse, *Bovicola ovis*, is becoming more common as fewer shepherds dip their sheep. It is spread by direct contact from sheep to sheep and, like the scab mite, can remain infestive for up to 17 days off the sheep. The sucking louse, *Linognathus* species, is much less common.

Prevention of skin conditions in sheep

It is wise to quarantine and, if necessary treat, any bought in or reintroduced sheep to prevent them bringing in additional unwanted guests in the form of sheep skin parasites. If you buy sheep which have problems, do not buy from that seller again. Buy from as few sources as possible.

Dips and pour-ons can be used to prevent infestation, especially if sheep are mixed on common land. Try to get all your neighbours grazing on common land to protect their sheep as well.

Mixed infestations of sheep scab and lice

To add further to the confusion some sheep can be infested with both scab mites and lice at the same time. Always consult your vet for advice about treatment in these cases. It can get quite complicated! Either suitable dips can be used which treat for both scab and lice or pour-ons can be used to target lice then three days later an injectable preparation which will treat for scab.

Scab and lice can be easily spread at shearing and scanning time. Ensure all equipment that contractors use is clean and disinfected. Scab mites are very successful breeders. If you have two scab mites on a sheep, in a month they can have multiplied to a million!

The future

Resistance to some dips has been reported – probably as a result of incorrect diagnosis and drugs used. The Moredun products should be commercially available in 2012 which will allow for earlier diagnosis of scab.

Conclusion

- ▶ Pour-on treatments do not treat sheep scab.
- ▶ Injectable products do not treat for lice.

For a full list of products used for treating external parasites in sheep please refer to The BRP Cattle and Sheep Parasite Control Guide 2011 (at www.livestocknw.co.uk or on the EBLEX website).

SAC also have a very useful leaflet giving advice on treatments for sheep scab but not lice at www.sac.co.uk.

Judith G. Charnley is a past president of the Sheep Veterinary Society and joint author of the *Sheepkeeper's Veterinary Handbook*.

Sheep Scab

If sheep scab is diagnosed in your flock there are several things you must do:

1. Discuss with your vet about which treatment to use.
2. Treat all the sheep in the flock whether or not they are scratching or losing wool. All will be affected.
3. Do not forget to treat your rams. Rams are some of the most efficient transmitters.
4. Dips will treat for scab and other skin parasites and some can help prevent fly strike.
5. Injectables will treat for scab and worms too. Injectable products are available under several trade names. There are three main families, moxidectin, doramectin and ivermectin.
6. Never guess the weight of your sheep before treatment. Weigh them accurately.
7. Pour-ons are ineffective treatments for scab.
8. Jettors and showers are not licensed for treating scab and should not be used because they do not work effectively.

9. Injectable moxidectin products must never be used in sheep that have received footrot vaccines. Adverse reactions have been reported.

10. If you decide to treat your sheep by dipping them, mite droppings will be washed away. The sheep's skin will be soothed by dipping.

11. If you decide to treat your sheep for scab by injecting them the mite droppings will remain on the skin and the scratching will take longer to disappear.

12. Check the withdrawal times for each product. Often injectable products have a very

long withdrawal time and will not be suitable for use in fattening lambs.

13. Several of the injectable products need a second injection of the drug 7-10 days later to be effective. Always remember to check the drug data sheets. Moxidectin products will provide residual protection. Ivermectin products do NOT provide this and after treatment sheep must be moved onto a field where sheep have not grazed for at least 3 weeks.

14. Some injectable products are given under the skin-subcutaneously, some into the muscle, intramuscularly. Always check the recommended route of administration PRIOR to use.

Lice

If a louse infestation is diagnosed in your flock:

1. Isolate affected sheep.
2. Treat all in contact animals including rams.
3. None of the injectable products used for treating sheep scab are suitable for treating chewing lice.
4. Pour-on products and dips are available for treating lice. They will often treat for other parasites too.

Chewing lice nibble the skin surface and can cause severe irritation. Wool loss can occur in some animals but it is not usually as severe as in sheep scab cases, unless already in poor condition. The wool tends to become matted because of the rubbing. When the fleece is separated

the skin appears clean in most cases. Lice can be seen with the naked eye and range from a pale yellow straw colour to dark brown. They move at a gentle meandering pace around the fleece itself and are rarely noticed on the skin surface. Scab mites can be seen on the skin surface.