

## PSOROPTIC MANGE IN CATTLE

### INFORMATION FOR VETERINARY SURGEONS AND FARMERS

VLA has recently diagnosed psoroptic mange, caused by *Psoroptes* sp. mites in cattle in Great Britain. These are the first cases seen since the 1980s and it is probable that the infection has been imported from Europe. There is no link with *Psoroptes ovis* (sheep scab) cases.

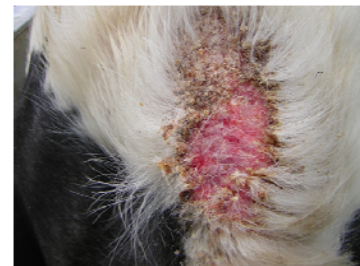
#### What does it look like?

Clinical signs are more severe in the autumn and winter. The *Psoroptes* sp mites cause a severe dermatitis with scab formation along the back, shoulders and tail head of cattle. There is intense pruritis (itching).

Figure 1: Tail head lesion



Figure 2. Shoulder lesion



Secondary infection is common leading to bleeding and crusting of the skin. Weight loss can be severe and deaths can occur if skin lesions are extensive.

The mites become quiescent (less active) and numbers reduce in the summer.

All breeds of cattle can be infected. Recent cases have mainly been in beef cattle but infection has also been confirmed in a dairy herd.

Buying-in infected cattle is the most likely way of getting the disease. It can also spread can occur by animal contact at market and in livestock lorries. Disease may be difficult to spot in the early stages, or in the summer months when mite numbers are low and clinical signs are minimal.

Figure 3. Animal mildly affected with Psoroptic mange. Hair loss and thickened skin over shoulders.



How is it diagnosed?

**Correct diagnosis with laboratory confirmation is essential.**

Initially, look for mites to collect using a hand lens. The mites are up to 0.75mm in length and are present all over the lesion, not just at the edge. They appear dark in colour (in contrast to the mites of sheep scab) due to feeding on the blood exudate.

You can collect a skin scrape by using a scalpel blade held at right angles to the skin. Scab material should also be collected. The material should then be transported in a container (e.g. a universal) to the laboratory.



Figure 4. Skin scrape sample in universal

Direct microscopy is normally sufficient for identification as there are usually large numbers of mites. A potassium hydroxide digest may be necessary if there are only a few mites.

Figure 5. *Psoroptes*



The *Psoroptes* sp. mites are oval with pointed mouthparts. All of the legs project beyond the body. The pedicels (at the end of the first, second and fourth pairs of legs in female and first, second and third pairs of legs in the male) are jointed and end with funnel-shaped suckers.

#### How is it treated?

Farmers should consult their veterinary surgeon as treatment is not straightforward and failure to kill the mites will lead to a prolonged and more serious disease outbreak.

The majority of cases diagnosed to date have failed to respond to macrocyclic lactones (ML) which is the licensed treatment for psoroptic mange.

In most cases successful treatment has been achieved by using a 4% permethrin pour-on product ('Flypor', Novartis Animal Health).

This is given at an increased frequency of treatment (three treatments at two weekly intervals) advised by the farmers' veterinary surgeon, under the cascade. Removal and destruction of the scabs before treatment is also advised.

It is very important to repeat the skin scrapes to check the efficacy of the treatment as clinical signs may improve but live mites may still be present.

The treatment should be given to all animals in the group and any in-contact animals. Movement from infected housing should also be advised. Mites can live off animals and be infective for at least 12 days.

One farm (and another is under investigation) has not responded to either ML or permethrin treatments.

In this case the use of Amitraz ('Taktic' Schering-Plough Intervet) imported from the Republic of Ireland, under a special license from the VMD, appears to be the logical treatment to use.

Please see the special import certificate application on the VMD website at [www.vmd.gov.uk/sis/](http://www.vmd.gov.uk/sis/).

It is essential to ensure effective treatment of this disease. Experience from other European countries has shown that it is possible for psoroptic mange to become the most common skin disease in cattle with associated severe production losses and welfare concerns.

**Please inform your local regional laboratory (RL) of the VLA of any suspected cases of psoroptic mange in cattle. For further information contact your local RL ([http://www.defra.gov.uk/vla/vla/vla\\_rls.htm](http://www.defra.gov.uk/vla/vla/vla_rls.htm)).**