Working Together to Control Sheep Scab
Sheep scab causes serious economic and welfare losses and only a few veterinary products will control it. Once mainly a disease of the autumn and winter, outbreaks of sheep scab now occur throughout the year and it affects 10 to 20% of flocks each year. (Less than 0.1% of flocks were affected when compulsory dipping ended in July 1992).

The best long term solution is to eradicate the disease from Wales and the rest of Britain as was previously achieved in 1952. This will require the implementation of good control measures for a number of years, including co-ordinated action amongst neighbours.

Sheep scab

Sheep scab is caused by the parasitic mite, *Psoroptes ovis*. Mites feeding on the surface of the skin cause an allergic reaction and intense irritation. Scab infection takes a few weeks to become apparent and the severity of the allergic reaction varies with the strain of mite, between individual sheep and also between breeds. Losses and the visible signs of scab thus can be greater in some flocks compared to others. In some flocks affected sheep will be seen to scratch and bite affected areas leading to wool loss and showing behavioral changes while in others the signs will be much less obvious.

If untreated, affected sheep lose bodily condition, lambs fail to achieve expected growth rates and there is damage to wool and skins.

Diagnosis

A correct diagnosis is essential so that the correct treatment is given. The signs of lice infestation can easily be confused with those of scab and flocks can be infested with both parasites at the same time. A huge amount of time and money is wasted through the inaccurate diagnosis and subsequent treatment of these two conditions.

The diagnosis of sheep scab is confirmed by the detection of the parasitic mites. Sometimes they can be seen by the naked eye as moving white specks round the edges of scabby or red areas or under scabs.

The most effective diagnosis method currently available is a skin scraping taken at the edge of a scabby area by a vet and examination of the sample for mites under a microscope.

A blood test is under development and may become available in the coming year.

Infection

The mites can exist off the sheep and remain infective for up to 16 days. Thus fence posts used for rubbing, handling facilities, trees, bushes, transporters, shearing equipment and contaminated clothing can all remain a source of infection for a considerable period. More typically transmission is directly from one sheep to another and it can be introduced to a flock from neighbouring sheep as well as by animals returning from shows, market, or away wintering. It is important to prevent transmission by implementing good disease prevention practices at all these potential entry routes.
Treatment

The only effective treatments for controlling scab are plunge dips and injectable products. Pour-ons and application of dip by jetters or in spray races are NOT effective. All sheep in the flock MUST be treated.

When choosing a product you should discuss the options with your veterinary surgeon or licensed animal health distributors and make sure you comply with any legislation.

The practice of dipping, for example, is tightly controlled by legislation and many issues require to be addressed before dipping can commence. Since early 2010 the choice of dip is restricted to organophosphate containing dips only.

Control sheep scab using the following three-pronged approach:-

1. PREPARE
Treat and isolate incoming stock. Assume all introduced sheep are infected with scab. Infection is easily picked up at markets or by sheep that are transported in lorries with other sheep or when cleaning between loads is inadequate. Allow a quarantine period of 21 days for treatment to take effect. The treatment must kill all the parasites present. Surviving scab mites will infest entire flocks. Do not add more sheep to a quarantine group. Choose an appropriate injectible product or dip for your circumstances.

2. PROTECT
Agree an “action period”, for example a period in September or October with your neighbours or if you graze a common.Treat during that period if the flock is “at risk” from scab. The great majority of Welsh flocks are probably “at risk” as there is movement of untreated sheep on to the farm and potential for direct contact with neighbouring flocks and ‘stray sheep’. Effective fencing, which prevents sheep wandering, and tight disease prevention (biosecurity) will do much to prevent the spread of sheep scab. If in doubt it is best to assume that your flock is ‘at risk’.

Scab mites can survive off sheep for at least 16 days. Therefore it is essential to:-
• choose a product that will provide protection against re-infestation and
• work with your neighbours so that the infection does not pass back and forwards across the boundary fence.

3. PREVENT
Remember all sheep carry a risk of introducing sheep scab. This includes all bought in sheep including rams, sheep returned from market or summer grazing and sheep which have gone to shows, sales and other events in shared transporters also. Check fences and gates before unloading. Dip or inject as appropriate.

SUMMARY
• Prevent disease entering a flock. Isolate and treat all incoming stock.
• Always consult your vet for advice and an accurate diagnosis using a skin scraping sample.
• Scab and mites require different treatments – pour-on treatments do not treat scab and injectable products do not treat lice.
• Select appropriate products to treat and control scab with your local vet or licensed animal health distributor (Suitably Qualified Person - SQP).
• Treat all sheep in the flock whether or not they are scratching
• Agree a local action period (for example in September or October). Assess your flock’s risk status, then treat accordingly.
**Scab treatment and control**

**1. INJECTIONS FOR PREVENTION & TREATMENT OF SCAB**

Cydectin/Zermex (moxidectin) 2% LA – A single injection only is required for treatment and has 60 days persistence for prevention of re-infection.

Cydectin/Zermex (moxidectin) 1% - Two subcutaneous injections 10 days apart are required for treatment. A single subcutaneous injection provides protection against re-infection for 28 days. Treated sheep should not be mixed with untreated, uninfected sheep for 12 days after the last treatment.

**Table 1. Injections for prevention & treatment of scab**

<table>
<thead>
<tr>
<th>Group</th>
<th>Chemical</th>
<th>Trade Name</th>
<th>Marketed by</th>
<th>Meat withdraw period:</th>
</tr>
</thead>
<tbody>
<tr>
<td>milbemycin 1%</td>
<td>moxidectin</td>
<td>Cydectin 1% Zermex 1%</td>
<td>Pfizer</td>
<td>70 days 70 days</td>
</tr>
<tr>
<td>milbemycin 2%</td>
<td>moxidectin</td>
<td>Cydectin 2%LA Zermex 2%LA</td>
<td>Pfizer</td>
<td>140 days 140 days</td>
</tr>
</tbody>
</table>

**2. INJECTIONS FOR TREATMENT & CONTROL OF SCAB**

One intramuscular injection of Dectomax (doramectin) is required. Treated sheep must not be mixed with untreated, uninfected sheep for 14 days.

Two subcutaneous injections of an ivermectin, seven days apart are required. Then only mix with untreated, uninfected sheep after a further seven days.

**Table 2: Injections for treatment & control of scab.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Chemical</th>
<th>Trade Name</th>
<th>Marketed by</th>
<th>Meat withdraw period</th>
</tr>
</thead>
<tbody>
<tr>
<td>avermectin</td>
<td>doramectin</td>
<td>Dectomax Injectable</td>
<td>Elanco</td>
<td>63 days</td>
</tr>
<tr>
<td>avermectin</td>
<td>ivermectin</td>
<td>Noromectin &amp; Paramectin</td>
<td>Norbrook</td>
<td>42 days after 2nd injection</td>
</tr>
<tr>
<td>avermectin</td>
<td>ivermectin</td>
<td>Qualimec</td>
<td>Janssen</td>
<td>42 days after 2nd injection</td>
</tr>
<tr>
<td>avermectin</td>
<td>ivermectin</td>
<td>Virbamec Injectable</td>
<td>Virbac</td>
<td>42 days after 2nd injection</td>
</tr>
<tr>
<td>avermectin</td>
<td>ivermectin</td>
<td>Ivomec Classic Injection &amp; Panomec</td>
<td>Merial</td>
<td>37 days after 2nd injection</td>
</tr>
</tbody>
</table>
3. DIPS – BOTH WITH LONG LASTING ACTION

Kill mites and provide approximately four weeks protection from a single dipping.

Organophosphorus dips: Paracide 62* Animax, Osmonds Gold Fleece Cross Vetpharm**.

Both these products contain Diazinon and have a meat withdrawal period of 70 days.

(Allow 14+ days between dipping and dosing with any drench containing levamisole.)

Notes:
* Paracide 62 is dispensed through a pump provided by the supplier.
** Osmonds Gold Fleece is dispensed using a special dispenser with a hand pump.

Note: Always check the current datasheet before using any veterinary medicinal product.

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