



## Activity against ectoparasites

### Sheep Scab (*psoroptes ovis*)

The injectable 3-MLs (endectocides) are also active against sheep scab and in recent years their use for the control of scab has increased as the use of organophosphorous (OP) dipping has decreased. This has always been a concern for SCOPS because when an endectocide is used, any worms in the gut of the sheep at the time of treatment is also exposed to the active, resulting in an inadvertent selection pressure for AR. This is often exacerbated by the timing of sheep scab treatments which are often during the winter months when the *in refugia* population is relatively low, increasing the severity of the selection.

The introduction of an endectocide with 60 days persistent activity against sheep scab mites (mox 2%) saw a further increase in the use of endectocide and combined with use for ewes during the per-parturient period this led to the need for [clear guidelines](#) on the use of this product.

In January 2018 the first cases of resistance in sheep scab mites to the endectocides was published and further cases have been reported since to both MOX, IVM and DOR in this group of products. This can be reversed if sheep are dipped properly in an OP, hence SCOPS has been working to improve access to OP dipping for sheep farmers via accredited mobile contractors.

Diagnosis remains a key issue in deciding whether sheep need to be treated for sheep scab. These products do not treat biting lice (the type seen in the UK) hence it is vital that farmers confirm a diagnosis of sheep scab before using an injectable. The introduction of an Elisa test as a diagnostic, which can detect exposure to Scab from +2 weeks (alongside the skin scrape) has meant that it is much easier to determine the need to treat from an early stage, reducing reliance on these products.

Follow this [link](#) for guidance on what to do when there is a suspected failure to an endectocide

### Other Parasites

The oral 3-MLs are also active against nasal bot flies (*Oestrus ovis*).

Injectable forms are active against mange mites (*Psoroptes*, *Sarcoptes*, *Chorioptes*) when given by injection. Oral formulations of the MLs have no activity against mites. There is **no claim for activity** against chewing lice (*Bovicola ovis*, also called biting lice) which is the common form found in the UK, ticks or keds.