



Sheep Scab Initiative

Bulletin #6

Sheep Scab in Northern Ireland – Treatment failures

Treatment failures can result for several reasons and will be evident if live mites are found on sheep after treatment (at 14 days after treatment with MLs and more than 1 day after OP dipping). Studies have found evidence of resistance to injectable MLs in sheep scab mites in the UK¹.

Possible reasons

Remember that there needs to be an initial specific diagnosis of the presence of sheep scab.

Breaches in the following areas could lead to treatment failure:

Injectable products (MLs)

- Was the correct product used and were data sheet recommendations followed, including the correct route of administration?
- Has there been underdosing? (Was bodyweight estimated correctly, was the correct amount of product given by the correct route and was the injection gun calibrated?)
- Has there been frequent and repeated use of MLs, over an extended period in the flock?
- Was contact between treated sheep and infected material (ie contaminated land or potentially infected sheep) avoided for at least 14 days after treatment was completed?

Diazinon Organophosphate (OP) dips

- Was the correct concentration of OP dip achieved and maintained?
- Was the correct dipping technique used? Were sheep dipped for a full minute and their heads submerged at least once? Was the dipper cleaned out before and after use? Were dipped sheep mixed with undipped sheep?
- Were dipped sheep recently shorn prior to dipping or was there less than 1cm of wool growth?

Actions to take

It is important to investigate treatment failures: resistance could develop if products are incorrectly or over-used, and significant time and money could also be wasted. **Report treatment failures to your vet**, who can provide specific advice on what action to take.

- ❖ If the sheep are still itchy but no living mites are detected on skin scrapes, your vet may consider sampling a further group of sheep immediately to check for live mites or may resample the affected animals from 2 weeks after treatment.
- ❖ If Sheep scab has not been recently confirmed, your vet may consider using the ELISA blood test to establish if sheep in the flock have been infested with Sheep scab mites.
- ❖ If use of MLs has not been successful, an assessment of the change in antibody level in blood samples over a minimum of 3 weeks in sheep that have been isolated could be carried out.
- ❖ Consider plunge dipping sheep in an OP dip if results suggest the existence of ML resistance.

A sheep scab suspected treatment failure protocol is available for advisers and SQPs (Suitably Qualified Persons, who can prescribe certain veterinary medicines) from SCOPS / AMTRA and is useful in the early stages of investigation. Lack of efficacy should be reported to the Marketing Authorisation Holder (MAH) or Veterinary Medicines Directorate (VMD).

¹ Doherty (2018)