

Use of medicines and the careful attention to detail

Medicines are a precious commodity to us all, and as such deserve to be treated with respect. Sheep vet **Richard Knight** airs his views on how, and why, this should be done



Richard Knight
Director
Westmorland Veterinary Group

There are few signs that many new medicines, especially anthelmintics, which are pivotal to the viability of a sheep farming enterprise, are in the development pipeline. As the number of major pharmaceutical companies in the market continues to consolidate, the volume of R&D reduces.

This is a pretty compelling reason for medicines only to be used when they are proven to be needed. Questions over efficacy, or reported instances of resistance (to treatment effect) need to be taken very seriously. It's not acceptable, when dealing with parasites, just to reach for another product. Instead, a full investigation should be launched.

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NEMATODIRUS BATTUS

Resistance of *Nematodirus battus* to benzimidazoles has recently been reported, for example. This was largely due to the diligence of the farmer involved in being suspicious that all was not well and



bringing it to veterinary attention. Tests for resistance are available and can range from the basic post-dosing faecal egg count (drench test), to the more complex larval development tests and egg hatch assays. These tests should always be conducted under expert veterinary guidance, as results can be difficult to interpret properly.

Of as much importance are the pre-dosing checks which, if not done properly, can lead to an erroneous conclusion that resistance is present. Vital checks such as checking the dosing gun is well maintained and is dispensing the correct volume, checking (by weighing) that the group is dosed for the heaviest animal and checking that the dosing gun is placed over the back of the tongue to ensure that the dose is swallowed properly.

Further information can be found at www.scops.org.uk I'm sure you all know about this, but please visit the site and read it from time to time to revise and keep up to speed. If all interested parties use similar, trusted information sources, then a high-quality, consistent message will get across.

LIVER FLUKE TREATMENT

When we look at investigating liver fluke treatment resistance, things can be a little harder to determine. Part of the problem is that detection of immature flukes, which can cause a lot of damage to sheep livers, are difficult to pick up. Recently, we have been making more use of the coproantigen ELISA test, which detects enzymes produced specifically from the gut of *Fasciola*

hepatica as they migrate and feed, with no cross-reaction from rumen fluke. Experimentally, positive results have been obtained from three to four weeks post-infection but positive results occur more commonly between six and nine weeks.

CONSIDERABLE VARIATION

There is considerable variation between individual animals and fluke isolates, though. When we use the

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test to assess success of triclabendazole treatments, a negative result is usually expected 14 days after treating animals which were previously positive. Animals need to be identified and often of a specific group size, so the involvement of everyone concerned is vitally important in the investigation to avoid duplication of tests and poor conclusions.

Richard Knight is a Director at Westmorland Veterinary Group in Cumbria, Lancashire and North Yorkshire. Contact him at: office@westmorland-vets.co.uk or on 01539 722692.

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CLARIFICATION ON SHEEP SCAB

Please note:

Further to the article on sheep scab (*Psoroptes ovis* infection) and control, in the Summer edition of *OvertheCounter* (page 38), Richard Knight would like to clarify that current best scientific advice is that there is a 'sheep-free window' of a minimum of 18 days between batches of sheep using a handling facility or field where the sheep may have had, or been harbouring sheep scab. We apologise for any confusion.