

Sustainable Control of Parasites in Sheep



NEW WORM CONTROL STRATEGIES FOR SHEEP

TAKING THE FIRST STEPS

....it's not too late.

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WHY DO WE NEED TO CHANGE?

For many years we have enjoyed good worm control in our flocks but this has become increasingly reliant on anthelmintics (wormers) and unfortunately it has speeded up the development of anthelmintic resistance. Current control strategies are mostly based on a 'blue-print' with ewes and lambs being drenched to a set pattern during the year. This offers good control while the anthelmintics remain effective, but often results in overuse of products and a lack of targeting for specific parasites.

HOW DOES ANTHELMINTIC RESISTANCE DEVELOP?

Every time we use an anthelmintic, worms that are susceptible to its chemical activity are killed and, if present, any that are resistant survive. Over time, the continued use of that chemical will result in an increasing proportion of resistant worms and eventually this will be high enough so that wormy sheep do not respond to treatment. This process can be slowed or speeded up by certain management practices.

IS IT TOO LATE?

No! For the majority of farms it is not too late to take action to slow the progress of anthelmintic resistance. Although we can find worms that are resistant to the BZ (white) wormers on the majority of farms, it may not have reached a level that causes an obvious problem on many of them.

For the levamisole (yellow LM) drenches, resistance is still much less common and for macrocyclic-lactone (clear ML) wormers it is rare. If we act now, we can preserve the activity of the ML group in particular for a number of years.

NEW STRATEGIES – TAKING THE FIRST STEPS

The new recommendations fall into 2 general categories:

- 1. Basic good practice** – using anthelmintics properly and getting the best from each drench used
- 2. Reducing Selection Pressure** – avoiding the over-use of anthelmintics and avoiding other practices which select rapidly for resistance.

This leaflet summarises the main things sheep farmers should now consider when planning their worm control. Some, highlighted in green are straightforward and relatively easy to implement. The others, in blue are more complex and will require time and discussion with your vet or adviser.

1. QUARANTINE TREATMENTS

Not all farms have resistant worms so quarantine treatments are vital to ensure that any in-coming sheep don't bring resistance with them. Follow these 3 steps:
A - Drench ALL in-coming sheep with a levamisole (yellow) drench and give them an ML (clear drench or injectable). The use of two products minimises the risk of any resistant worms surviving.

B - Keep them off pasture for 24-48 hours so that all the worm eggs have been passed.

C - Turn them out on to dirty pasture to make sure any eggs from worms that may have survived treatment are diluted by worm eggs already on the pasture.

2. ALWAYS ADMINISTER DRENCHES CORRECTLY AND AT THE RIGHT DOSE RATE

Always dose to the heaviest in the group – don't guess, weigh them! Then check that the dosing gun is working properly by discharging it several times into a syringe or measuring jug. Make sure that the drench goes over the back of the tongue and where possible restrict access to feed before administering BZ (white) or ML (clear) drenches (but never for pregnant ewes).

3. TEST FOR RESISTANCE

Find out which drenches are working effectively on your farm by taking faeces samples before and some days after drenching. Ask your Vet. for details of how this simple test can be done. Then plan a strategy that takes account of your current resistance status with the aim of maintaining the effectiveness of the chemical groups that are still working.

4. LOOK AT YOUR CONTROL STRATEGY

Are you drenching to a set pattern every year? If so, it's time to sit down and look at the reasoning behind each treatment and whether there is scope to reduce the number of treatments or to target them better. Consult your vet or adviser and look at how you can implement these recommendations. Some strategies can be put into practice quickly, while others will take time - but the sooner you act the longer the drenches will work for you.

5. REDUCE DEPENDENCE ON ANTHELMINTICS WHERE POSSIBLE

Looking for ways to use grazing management to reduce worm burdens remains an important part of worm control. Pasture such as aftermath or even areas that have just carried dry adult sheep will have lower worm burdens. Lambs on these pastures will require fewer treatments. CAP Reform may even give us more opportunities for this in the future as stocking rates fall and new systems evolve. The advances being made with rams selected for resilience to worms will also offer the option to reduce anthelmintic use in the future.

6. TRY TO USE ANTHELMINTICS ONLY WHEN NECESSARY

Faecal Egg Count (FEC) monitoring has an important part to play in determining when and which sheep to drench. Sheep farmers who regularly use FECs use less drench overall and therefore reduce the selection pressure for resistant worms. Minimising the treatments given to mature sheep that are immune to most worm species is also important. If adult sheep are fit and healthy the need to treat them is limited and some practices, for example blanket pre-tupping treatments, should be questioned.

7. SELECT THE MOST APPROPRIATE ANTHELMINTIC

FEC monitoring can also be used to show which parasites are present and this helps to reduce the use of broad spectrum anthelmintics. For example, liver fluke can be treated with flukicide products that do not contain any of the wormer groups. The Barber's Pole worm (*Haemonchus contortus*) can also be treated with a narrow spectrum wormer. This can significantly reduce the unnecessary use of the anthelmintics we need to preserve, particularly in adult sheep. It is also often cheaper!

8. PRESERVE SUSCEPTIBLE WORMS

This is the hardest recommendation to implement. However, we must begin to think about preserving susceptible worms on farms in the future.

There are two main things to consider:

- Mature sheep are immune to most worm species, so the need to treat them is limited. An exception is ewes for a few weeks around lambing. Even if treatment is necessary for some sheep, leaving just a few of them untreated you will help to preserve some susceptible worms on your farm.
- Turning newly drenched sheep on to clean pasture means that the pasture will only be populated by resistant worms. This is highly selective for resistance. But clean pastures are good for the sheep, so how do we get around this? There are two possible compromises:

Treat them a few days before moving

OR

leave a small number of sheep untreated.

Who are SCOPS? (Sustainable Control of Parasites in Sheep).

We are a group that represents the interests of the sheep industry and we recognise that unchecked, anthelmintic resistance is one of the biggest challenges the industry faces in the next few years. Lead by NSA (Peter Baber, NSA Chairman), we have representatives from the animal health companies (NOAH) and distributors (AHDA); RUMA; VLA; SNFU; Defra; SEERAD; Sheep Veterinary Society, research and Universities and an independent adviser.

**For further information:
Contact your Vet, Adviser or Distributor
Or visit www.nationalsheep.org**

