Endoparasite Control in Sheep

Worm control is very important but the development of anthelmintic resistance also needs to be taken into account. Anthelmintic resistance is when the wormer you use does not kill the worms, the surviving worms then lay resistant eggs that go onto the pasture and the problem multiplies. In the UK there is already up to 80% resistance to the white drenches and in Scotland resistance to all three classes of wormer has been reported.

Therefore the worming plan you follow needs to address both worm control and prevention of anthelmintic resistance.

**Ewes**

1. **DO NOT** give a pre tupping dose to fit adult ewes. Ewe lambs or very thin ewes may be dosed. The use of an unnecessary pre-tupping dose is expensive and strongly selects for anthelmintic resistance. *Any resistant worms will survive the treatment and then live in the sheep’s stomach during the winter. Then in the following spring at lambing time these resistant worms become active again (known as the peri-parturient rise due to a decline in the sheep’s immunity). Hence all the eggs that are passed by the ewe onto the pasture are resistant to the wormer used, the lambs then consume these eggs and then multiply the number of resistant worms.*

2. **DO dose** ewes at lambing. Alternate the drench used from year to year. We recommend that 10% of the ewes are left untreated in each group that are turned out onto pasture. *The omission of 10% of the ewes means that any resistant eggs shed by the ewes that are treated are then diluted by the eggs shed by the untreated ewes, hence fewer resistance eggs picked up by the grazing lambs.*

3. Select the appropriate anthelmintic. For example when drenching for fluke use a product with just triclabendazole or closantel in, such as Fasinex.

4. Continue to drench against fluke in October and January.

**Lambs**

1. Only worm the lambs after doing a faecal egg count. A faecal egg count is a very sensitive method to detect the level of worm burden and it also relatively cheap compared with drenching all the lambs when it is not needed. The first faecal egg count should be performed just before the time you normally drench the lambs for the first time. It should then be repeated at three week intervals or if you think the lambs are scouring to check there is not a worm burden.

2. To perform a faecal egg count you should gather some sheep in the corner of a field, make sure you have at least 20 lambs. Let the lambs stand for a couple of minutes and then collect ten lamb faeces and put these into the same container. This needs to be done for each group of sheep. The faeces can then be given to the vets/taken to lab who will let you know whether it is necessary to drench the lambs based on the number of worm eggs there are in the faeces.
3. Rotate the four classes of anthelmintic used, as necessary after the faecal egg count, on a three yearly basis. For example:

   Year 1 – White drench (benzimidazoles)
   Year 2 – Yellow drench (levamisole)
   Year 3 – Clear drench (avermectin)
   Year 4 – Orange drench (ADs)

   Use the same class for the ewe post-lambing drench and ram dosing.

4. If your lambs are scouring and a faecal egg count rules out worms as a cause of the scouring then **DO NOT just drench them.** You could do another faecal egg count to double check and then talk to your vet about other possible causes of the scouring.

**General recommendations**

1. **After drenching leave the sheep on dirty pasture, DO NOT move them onto clean pasture.** Moving sheep onto clean pasture after dosing them strongly selects for anthelmintic resistance. After drenching the only eggs passed by the sheep are resistant to the wormer used, by keeping the sheep on dirty pasture these resistant eggs are diluted by the susceptible eggs that remain on the dirty pasture.

2. **Treat all purchased sheep sequentially with Doramectin (clear) and Zolvix (orange)**, yard for 48 hours and then turnout onto dirty pasture (away from your sheep for three weeks). **This will ensure that all resistant worms are killed and the use of doramectin will treat any sheep scab present.**

3. **Administer anthelmintics correctly.** Dose to the heaviest in the group and ensure that the drenching gun is calibrated.

4. **Goats should be kept separate** from the sheep at all times and sheep should not graze pasture that goats have been on. **Goats metabolise drugs differently to sheep, consequently they require a higher dose of anthelmintic for effective worm control. Inadequate dosing will select for resistance.**

**HOW TO TEST FOR WORMER RESISTANCE IN YOUR FLOCK**

**FAECAL EGG COUNT REDUCTION TEST (FECRT)**

1. Hold 10 sheep in the corner of a field
2. Collect fresh droppings into a pot
3. Give to your vet for an egg count or perform ‘Fecpack’ at home
4. Drench sheep with white drench
5. 10 days later, repeat steps 1-3

If results show that the egg count has not reduced by 95% or more = there is RESISTANCE to this wormer and it is NOT and NEVER will be effective in your flock.