

### Farmers: check efficacy of treatment

It is important to know if your medicines are working effectively. Your vet or SQP can arrange a simple and inexpensive post-drenching efficacy check, in which samples are collected from animals 7-14 days after treatment. For this test, 10 fresh faecal samples are collected and pooled and a single FWEC is performed on the pooled material. If the drug is working effectively then very few worm eggs will be present in the post-treatment sample. For optimal testing, samples from animals treated with levamisole should be taken 3-7 days post-treatment and for those treated with benzimidazole, or macrocyclic lactone, sometime between 10 and 14 days post-treatment.

If worm eggs are identified post-treatment then a more rigorous test can be conducted subsequently, which counts the number of worm eggs present in the faeces before and after drenching. This test is called a Faecal Egg Count Reduction test and indicates the drop in worm egg count post treatment.

Faecal samples should be collected from 10 identified animals on the day of treatment, and again, from the same animals 7-14 days post-treatment. The number of days post-treatment for each of the drug classes is the same as described above. If resistance is detected it will be necessary to work out a control strategy with your vet or SQP taking into account the worm types involved and the management strategies adopted on each particular farm.

Lack of efficacy should be reported to the Veterinary Medicines Directorate under the Suspected Adverse Reactions scheme.

If animals are treated with a bolus or a persistent treatment, it is also worth noting that the early stages of resistance are signified by a shortening in the egg reappearance time after treatment, which may be due to worms establishing in a higher concentration of the compound than previously experienced or a suppression of egg output in surviving worms whilst the drug is at a particular level which resumes when the drug concentration falls. If eggs reappear, it is important to ensure that the survivors are identified to genus level, due to the variation in persistency claims between products for many of the target worm species.