

June Sheep Health

AWHNI Flock Health Focus: Test, Don't Guess- Taking Faecal Egg Counts (FEC)

Last month's pieces focused on identifying nematodirus and coccidiosis infections in lambs, which are usually the first parasitic challenges that they encounter. Faecal egg counts (FECs) can be useful, both for monitoring healthy lambs and for diagnosis of parasitic gastro-enteritis, when they are used and interpreted correctly. Many lambs will have by now received a first worming dose and FECs can become more useful as the season progresses.

A faecal egg count is used to count the number of worm eggs in faeces, the number of eggs being an indication of the number and activity of adult worms in the gut of the sheep. They can be used to determine whether treatment is needed or not, and also to test whether a past treatment has been successful.

Targeted, Sustainable Control

Traditionally lambs were routinely dosed every 3-4 weeks. However research has shown that this is not usually necessary. Lambs are at the highest risk of infection when they first begin consuming grass (6-12 weeks old). Once they have been exposed to an initial roundworm challenge, they will begin to develop immunity (although this will not be immediate).

Worm burden varies from pasture to pasture- some pastures will have heavier burdens than others depending on management and field conditions. Therefore, assuming that lambs will immediately become reinfected following dosing is not always correct. By regularly taking samples for FECs every 3 weeks (this is approximately the time it takes for an ingested immature parasite to mature and start producing eggs for most gastrointestinal nematodes), the counts can help you to identify which pastures may be a higher risk to lambs in terms of parasite contamination.

Using FECs means that, if lambs do not need treated, unnecessary handling for routine worming will be reduced. This will not only save time and labour but also may reduce the chance of other conditions spreading such as lameness.

Routine blanket worming will also increase the chance of anthelmintic resistance developing on your farm. There are already high levels of resistance across farms in Northern Ireland to benzimidazoles (white drenches) and macrocyclic lactones (clear drenches), therefore it is necessary to use these veterinary medicines only when needed.

Detecting Anthelmintic Resistance

Testing regularly can also give an idea about whether there may be resistance developing on your farm, for example, a very high egg count three weeks after a treatment may be an indicator of this, but results should be discussed with your private vet.

There are specific tests for resistance, such as a 'Faecal egg count reduction test' (FECRT) where faecal egg counts are compared after treatment. If egg counts are not reduced by at least 90%, wormer resistance may be present.

For accurate results, sheep should not have been recently treated with a wormer and should have a sufficiently high worm egg count before testing.

Efficacy can also be tested by taking a faecal sample pre-dosing, and then a sample after dosing; the correct time point for doing this depends on the product used: seven days after a yellow drench, 10-14 days after a white drench and 14-16 days after a clear drench, for example.

Detecting anthelmintic resistance as quickly as possible is important in helping to maintain anthelmintic effectiveness and also to demonstrate widely that veterinary medicines are being used responsibly.

Taking a Faecal Sample

When taking a faecal sample, it is important to do it correctly to get the most accurate results. It can be easiest to obtain these samples first thing in the morning during a regular check (as lambs will be lying down, and usually when they rise they will pass faeces). They can also be collected by penning sheep in a corner of the field for a short period, or during another handling activity. Usually when sheep are moved and slightly stressed then they will tend to pass faeces.

- When collecting samples, unless you want to specifically test individual sheep, for breeding purposes, they can be gathered in the one bag/pot.
- Collect at least 15 different samples from individual sheep
- Each sample should be around the size of a heaped teaspoon (3g)
- Collect samples at random, whether they are loose or solid
- Samples must be fresh therefore collecting them directly after the faeces has been passed from the animal is important. This is because eggs can hatch within 24 hours.
- Ideally these should be taken immediately to your veterinary practice or sent to a lab for testing, however if this is not possible then keep the samples in a sealed container in a refrigerator to avoid eggs hatching for a few hours until they can be delivered.

Using the Results

FEC results should be used as a tool to support decision-making rather than as a standalone answer. Egg counts need to be interpreted alongside factors such as the age of the lambs, their performance, grazing history, weather conditions and any clinical signs that may be present.

A low egg count does not always mean that no action is required, and equally a high egg count does not always mean that immediate treatment is necessary. Discussing results with your private vet can help ensure the most appropriate decision is made for your flock while also avoiding unnecessary wormer use.



Animal Health & Welfare NI
Sheep Health

TEST, DON'T GUESS

Use Faecal Egg Counts to guide worm control decisions

1

Collect Fresh Samples



2

Carry Out FEC



3

Review Results



4

Treat Only If Needed

Benefits of FEC testing

- ✓ Reduced wormer use
- ✓ Saves time and labour
- ✓ Reduces handling stress
- ✓ Helps slow resistance



FEC RESULTS AT A GLANCE

(Trichostrongyle egg counts – for adult gut worms)

Note: These thresholds do not apply to Nematodirus.



LOW BURDEN

<250 epg

- Usually low challenge
- Continue monitoring
- Retest in ~3 weeks



MODERATE BURDEN

250–750 epg

- Assess flock risk
- Consider age of lambs
- Review grazing history
- Discuss with your vet



HIGH BURDEN

>750 epg

- Significant challenge
- Treatment may be required
- Review worm control plan
- Monitor treatment success

Remember:

Interpret results alongside lamb age, clinical signs, grazing history and weather conditions.