Nematodirus and FEC Testing

The months of April and May coincide with many young lambs on the ground. As the lambs grow and start grazing, we need to start thinking about what parasites they will encounter from the pasture. The following article is based on outcomes from Farming Connect's Parasite Management Project (PMP).

Key Messages

- White wormer isn't always the best option for 1st and 2nd lambs' dose
- FEC can be used in young lambs in spring - but take care with interpretation
- Use SCOPS forecast as well www.scops.org.uk

Background

The major worm species that lambs first encounter is widely accepted to be *Nematodirus*. This can be a particularly damaging parasite resulting in high number of deaths and performance loss. It has a different life cycle to other parasites and getting the timing of treatment correct is difficult. Infection generally carries from one lamb crop to the next with approximately a 12-month delay from the eggs being deposited on pasture and then hatching into larvae. This is highly dependent on climate conditions. Long cold spells followed by sudden increases in temperature can trigger a mass hatch which affects lambs very quickly. This can be particularly devastating for young lambs since most *Nematodirus* eggs hatch to coincide with when vulnerable young lambs start grazing.

What is the current policy around spring worming?

The standard practice across all the sheep farms in the project (as it is across the country) is to use a white wormer (Group 1BZ) for the first (and sometimes second) lamb dose. There are two reasons for this:

1. Although white wormer resistance is widespread against the *Strongyle* group (all worms other than *Nematodirus*), it seems to remain fully effective on most farms against *Nematodirus* (there are only a few exceptions in the UK)
2. It's a cheap option when there are many lambs on the ground to dose and is a good course of action as this will kill earlier stages of the parasite than other wormers.

Many will advise not to Faecal Egg Count (FEC) test at this time of year as *Nematodirus* can cause significant problems for lambs before the adults start laying eggs. Although we at Techion agree with the reasoning, we encouraged our project farmers to test as we can still get valuable information which may alter the wormer choice.

The two questions that we wanted to challenge during this project were:

Q1 - Can we use FEC for lambs in spring?

A. Yes, we can – however care needs to be taken when interpreting results.

- Quite often the FEC results will show lots of other *Strongyle* eggs which may well change your drench choice as described below.
- FEC test will detect when adult *Nematodirus* are present, but problems can occur before then so you may need to dose at low or zero FEC. (Interpretation is the key.)
- **BUT** — eggs can appear before clinical signs show up and/or during low risk periods. This happens regularly where FEC results helped trigger an earlier treatment, avoiding potential performance loss and reduce contamination of *Nematodirus* eggs.

Q2 - Is white wormer (1BZ) the best dose to use at this time of year?

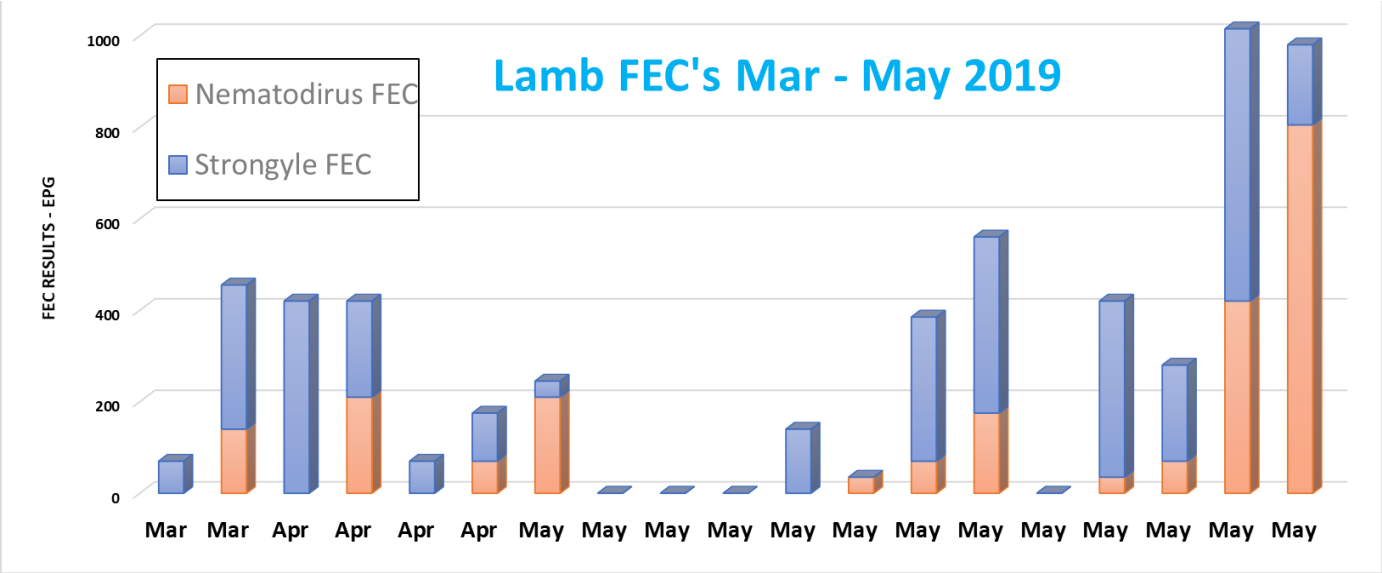
A. Not always!

- If *Nematodirus* is the only worm being targeted then yes, white drench (1-BZ) still appears to be the best choice.
- **BUT**— if other worms are present (medium or high *Strongyle* count), then farms with white drench resistance should use other effective wormers.

- If *Strongyle* worms aren't properly controlled, then this could affect lamb performance and contribute to prolonged pasture contamination and higher worm burdens later in the season.

So, what did we learn from the project farms?

The graph below shows FEC results from all lamb tests taken between end of March and end of May on the seven sheep farms in the project. Colours of the bars denote the split between worm species identified.



- The results show clearly that there is a mix of worms in the spring and in most cases the *Strongyle* worms (purple bars) are more dominant than *Nematodirus* which is contrary to the assumptions most of us make.
- The presence of so many *Strongyles* surprised our farmers.
- Many of the farmers knew white drench wasn't fully effective against those *Strongyle* worms and therefore were able to change to use another drench group which would work better for both worms.
- This resulted in better early lamb performance for many farms as detailed in some of the case studies.

"Since we changed to a yellow wormer for the May lamb dose, based on FEC results and Techion's advice, the lambs have just flown and most have been sold as finished lambs by the middle of August".

David Lewis, Halghton Hall, Bangor on Dee.

When to test and interpreting results:

- Start FEC testing as soon as lambs are 5/6 weeks old (you won't find any eggs before this).
- Test all groups separately where feasible. The *Nematodirus* challenge will vary significantly between fields, especially between lower and higher ground as temperature is a key factor for the hatch.
- Please take care at this time of year when interpreting counts as even though results may be in the low/medium category (below 500 epg – or even 0), we still advise to worm against *Nematodirus* if there is a known history of it, evidence of clinical signs and the conditions are correct.
- The *Nematodirus* forecast on the SCOPS website (www.scops.org.uk) is also a useful resource in helping that decision making.
- Ask for help! Speak to your vet or animal health advisor.

For more information on Farming Connect's Parasite Management Project (PMP) please see the full report and case studies at https://businesswales.gov.wales/farmingconnect/our-farms/projects/parasite-management-project

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