



# FAECAL EGG COUNT TESTING SERVICE

A diagnostic service to assist with identifying parasite burden and anthelmintic resistance

## What is faecal egg count testing?

**Faecal worm egg counts are used to identify the level of gutworm burden in animals, and if there's a need for treatment.**

Internal parasites, such as gut worms, are a common occurrence in livestock. Gutworms have a negative effect on animal performance and must be managed to ensure that they do not affect growth rates in youngstock.

Adult gut worms lay eggs, which are then passed onto the pasture in the animals' faeces. By counting the number of eggs in the faeces, we are able to estimate

how large the worm burden is. In youngstock a high faecal egg count (FEC) indicates a worm burden that will be affecting growth performance, and warrants an anthelmintic treatment. When egg counts are negative or low no worm treatment is necessary, and during the grazing season, animals should be tested again a few weeks later.

FEC tests on dung samples taken before and after anthelmintic treatments can be used to show whether the wormer is working, thereby identifying if there is any anthelmintic resistance.



## What is anthelmintic resistance?

Anthelmintic resistance is the ability of a parasite to survive a treatment that is designed to eliminate it. The FEC Reduction Test will provide information on anthelmintic resistance by checking that the gutworm egg count has come down (worms have been killed) after treatment.

## What is the Faecal Egg Count Reduction Test?

FEC Reduction Tests are used to check the effectiveness of the wormer used. Assuming there were worm egg counts in the first sample, a fresh sample taken two weeks after dosing a group of youngstock can be submitted with details on the date of dosing and the product used. If the FEC result from the post-treatment sample is less than 5% of the

original sample, the product used has been effective and gut worms are not showing resistance to that product. If the egg count result following treatment has not reduced significantly then there may be an issue with the treatment used (including resistance) and a different product should be used to treat the infection.

## Effects of parasite infestation

The negative effects of parasitic infestation can range from sub-optimal performance, which may not be obviously visible, to clinical disease. In youngstock, clinical signs caused by gut worms include diarrhoea and loss of condition. However, reduced growth rates is the more common way in which parasite burden

affects youngstock and often remains sub-clinical and therefore unnoticed. In replacement heifers, sub-clinical effects are reduced body weight at breeding and delayed age at first calving. In beef animals there will also be a reduced feed conversion efficiency leading to reduced daily liveweight gain.

Performance measure	Potential negative impact of moderate worm burden
Average daily liveweight gain (Kg/day)	< 0.7
Body weight at breeding	< 60% mature body weight
Age at finishing / first calving	> 24 months

Target ADG: > 0.7 Kg/day

## Action taken based on faecal egg count

### Where gutworm burden is present:

- Increase average daily gain by treatment
- Increase feed conversion rates
- Increase appetite and dry matter intake
- Decrease risk of gut damage – improving nutrient absorption
- Decrease the risk of future replacement animals inheriting resistant parasites

### Where gutworm burden is not present:

- Anthelmintic treatment is not warranted
- Reduce cost by eliminating treatments that are not required
- Responsible use of anthelmintics (only when necessary) will reduce the development of anthelmintic resistance



## When is the right time to do FEC testing?

First and second grazing season youngstock will be impacted most by an increased parasite burden. The FEC testing service provides a convenient and low cost way to identify gut worm burdens in grazing youngstock before any treatment is given.

Faecal testing can be carried out at any time throughout the grazing season, however the most relevant time to carry out the first test is 3-6 weeks after turnout.

A single pooled faecal sample from 10 animals in the same age group should be taken. This single sample should contain similar amounts from each animal. The faecal samples collected must be fresh and can be kept in the fridge for up to 24 hours before testing.

To check for anthelmintic resistance, a FEC reduction test can be carried out on a similar pooled faecal sample from the same group of animals, taken 14 days after treatment.



## To participate in the service

Tirlán's faecal egg count testing service is provided both on-farm and in-branch. Contact your local Tirlán branch or business manager to express your interest in this service and arrange a test.



## FEC Testing Service - Three simple steps

**1** Collect a pooled faecal sample from 10 animals

**2** Contact your Tirlán Business Manager or Branch and set up FEC appointment

**3** The report is sent to you shortly after the test and results can be interpreted

<200 eggs/gram

No need for gut worm treatment

Repeat FEC in 4 weeks

200 - 700 eggs/gram

Immediate treatment not indicated but performance could be affected

Repeat FEC in 2-4 weeks

>700 eggs/gram

Gut worm treatment for the affected group is indicated

Check if the product has worked - FEC Reduction Test 2 weeks after treatment

**Don't create anthelmintic resistance and waste money by using unnecessary worm treatments.**