

Why?

Faecal samples are examined to:

- > Help diagnose clinical disease
- > Indicate levels of pasture contamination
- Determine if bought-in cattle are shedding eggs or lungworm larvae that can contaminate pasture
- > Determine if a worming treatment is needed
- Identify when treatment is not required, saving time and money
- > Check if a wormer has been effective

How?

- Wearing a glove, collect fresh faeces from a fresh, warm dung pat on the ground. Cattle that are disturbed from lying will often pass faeces on standing up
- Four heaped dessert-spoonfuls of faeces (40g) per animal should be collected
- > Take the sample from at least three areas of the dung pat
- Place samples into individual zipper storage bags or plastic pots with screw lids and label
- Squeeze air out before sealing if using bags. With pots, fill to the brim to exclude air
- > Do not mix the samples
- If sampling for routine monitoring, take samples from ten cattle per management group

- Ask your vet or SQP for advice on which lab to send the sample to. Prices vary
- Submit samples. Follow postal regulations, ie use multiple layers of leak-proof packaging
- > Ensure samples arrive within two days of collection
- Store hygienically in a fridge at around 4°C, if there will be a delay before getting them to the lab
- > Give as much information as possible, ie condition of animals, if cattle are scouring, any wormer treatments given, name of product used and dates of treatments

When?

- Discuss which test to run and how frequently to do them with the vet, SQP or vet pharmacist
- > For routine gut worm monitoring during the grazing season, start two months after turnout and take at least one mid-season and one late season sample. Generally adult cows with calves at foot or adult dairy or suckler cows will not need monitoring unless a problem emerges
- For liver fluke, test at housing and 12 weeks after housing or before

turnout to check if further treatments are neccessary

- If testing to determine if a wormer has been effective, submit samples at the appropriate time post-dosing, depending on which product was used, ie:
 - > 14–17 days after dosing with benzimidazoles (1-BZ), macrocyclic lactones (3-ML) or flukicides
 - > 7–10 days after levamisoles (2-LEV)

What next?

- At the lab, samples will be tested individually or pooled for examination. Examining samples individually is best for:
 - > Diagnosing clinical disease
 - > Determining if bought-in cattle are shedding eggs or larvae
 - > Checking if a wormer has been effective
- Using pooled samples is a useful way of monitoring worm burdens over the season
- > It is important to recognize that faecal

egg count results do not accurately reflect the total worm burden of an individual animal. It is recommended that results are discussed with the vet, SQP or vet pharmacist



What to do with the results

Always discuss the results with the vet, SQP or vet pharmacist.

Gut worms

The use of wormer treatments will depend

on the age of the animals, pasture grazing history, daily liveweight gain and signs of clinical disease. FEC results can help inform parasite control plans. Generally, counts greater than 200 eggs per gram in cattle in their first grazing season that are not achieving target growth rates, indicate a worming treatment would be beneficial.

However, a lower egg count does not mean worms are not causing problems. Results should always be considered alongside other signs of poor health, particularly low growth rates.

Lungworms

If lungworm larvae are present in faecal samples and cattle are coughing, anthelmintic treatment is likely to be needed. However, disease can be caused by immature worms, so a negative result does not always mean there is no infection. Discuss results and history with

the vet, SQP or vet pharmacist. Also consider vaccination (Huskvac) to prevent disease associated with lungworm.



Liver fluke



If liver fluke eggs are present in faecal samples, wormer treatment may be an option but not necessarily needed immediately. Immature fluke cannot be detected by egg counts and can still cause disease.

Some flukicides only kill adult fluke, so allowing immature fluke to develop will mean treatment with these products is more effective.

Discuss results and history with the vet, SQP or vet pharmacist to discuss treatment approaches and when to treat relative to housing, or whether further diagnostic testing would be useful.

Rumen fluke

Even if rumen fluke eggs are present in faecal samples, wormer treatment may not be needed.

Discuss with the vet, SQP or vet pharmacist the best course of action.

Other diagnostic tests are available to help ascertain the level of infection in a herd.

Discuss these options with the vet, SQP or vet pharmacist.

For more information on controlling worms sustainably in cattle, visit www.cattleparasites.org.uk



With thanks to Helen Carty (SRUC), Prof. Jaqui Matthews (Moredun Research Institute) and Prof. Diana Williams (University of Liverpool) for their work in the production of this leaflet.



The **COWS** Guide to

Taking a faecal sample

to test for parasites



Taking an evidence-based approach to giving wormers to cattle is advisable to ensure the sustainable use of products. Work with the vet, SQP or vet pharmacist to ensure there is a parasite control plan that is tailored to the farm and the animals.

Faecal (dung) sampling should form part of the worm control plan. The samples can be examined at a laboratory to see if there are any adult parasites in the stock.

The eggs of gut worms and liver and rumen fluke can be detected in dung samples. Larvae of lungworms can be found in faeces taken directly from an animal's rectum although the reliability of the results can be low. Farm history and clinical signs of disease are important signals of lungworm. Eggs and larvae will only be present if adult stages of the parasite are living in the animal. Be aware immature parasites that do not lay eggs might still cause disease.

Note there is a delay between cattle acquiring an infection and the infection being identified by looking for eggs or larvae in a dung sample.

Cows develop immunity as they are exposed to gut worms and lung worms, so animals that are in their second grazing and adult cows normally have low egg and larval counts.

The sensitivity of egg counts for liver fluke and rumen fluke are low in cattle, so a negative count may not mean there is no infection. The best thing to do is to take two counts, one in spring and one

Control Of

Sustainably

Worms

in autumn to be sure the herd is not infected with liver fluke.