

HOW TO DO A FAECAL EGG COUNT REDUCTION TEST (FECRT)

WHAT IS A FECRT USED FOR?

FECRTs are used to determine whether worms such as *Strongyles* and Ascarids (roundworms) are resistant to a particular anthelmintic. It is a good diagnostic tool and will provide the horse owner or veterinary professional with some valuable baseline data with which to work.

An FECRT result of 97% or (preferably) higher would indicate there is no resistance to that anthelmintic at that time.

HOW DO I DO IT?

The process for undertaking an FECRT is identical to undertaking an FEC. **The difference is in the timing and the calculation.**

An FECRT must be carried out **after** a worming treatment but **before** the Egg Reappearance Period (ERP) expires. Therefore, for *Strongyles and Ascarids* the optimum time is about **14 days post anthelmintic treatment**. This provides enough time for the treatment to have had an effect on indwelling worms, but not enough time for mature worms to begin laying eggs again post treatment.

There are 4 simple steps to undertaking an FECRT:

1. Wait 14 days from the most recent anthelmintic treatment
2. Obtain a fresh manure sample, undertake a faecal egg count and record the Eggs Per Gram (EPG)
3. Get out your calculator
4. Use the following formula to obtain your FECRT result:

FECRT Formula

$$\text{FECRT(\%)} = \frac{[\text{EPG (pre-anthelmintic treatment)} - \text{EPG (14 days post-anthelmintic treatment)}]}{\text{EPG (pre-anthelmintic treatment)}} \times 100$$

Example 1:

$$\text{FECRT(\%)} = \frac{[1025 \text{ EPG} - 25 \text{ EPG}]}{1025} \times 100 = 97.6\% \text{ reduction}$$

a good result indicating no resistance

Example 2:

$$\text{FECRT(\%)} = \frac{[1025 \text{ EPG} - 1000 \text{ EPG}]}{1025} \times 100 = 2.4\% \text{ reduction}$$

a poor result indicating the possibility of resistance

