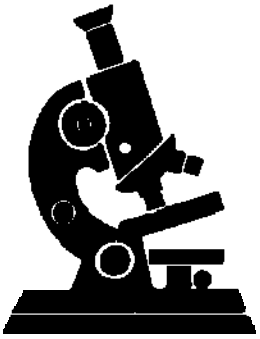
FECAL EGG COUNTING (FEC)



A **Qualitative** fecal analysis shows the presence or absence of worm eggs and general trends. It is useful for identifying the types of parasite eggs that are present. Roundworm, tapeworm, and coccidia eggs can easily be identified.

A **Quantitative** analysis determines the specific number of parasite eggs per gram (EPG) of feces through a controlled sampling procedure. With a quantitative analysis, it is essential to start with known quantities of feces and flotation solution.

What you need for Quantitative Fecal Analysis

100X microscope with a mechanical stage
Flotation solution
Calibrated mixing vial
Syringe for transferring solution to slide chambers
McMaster slide with egg counting chambers

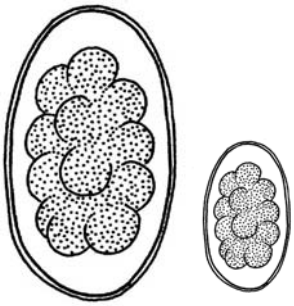
The Modified McMaster Technique using PARACOUNT-EPG™

1. Add flotation solution to mixing vial to midway between the two lines (28 ml).
2. Add feces[1] to vial to bring solution up to second line.
3. Stir mix thoroughly for 20-30 seconds.
4. Immediately draw solution into syringe and fill one chamber of slide.
5. Stir mix and fill other chamber of slide.
6. Place slide on microscope.
7. Examine slide under 100X.
8. Focus until grid lines are clear.
9. Count all eggs inside or under the grid lines[2.] Start at one corner and move from one column to the next.
10. Repeat procedure for second chamber.
11. Add together the number of eggs counted under each of the two grids.
12. Multiply their sum by 50.

[1]Fresh samples will yield more accurate results.
[2]Do not count eggs outside of grid. Eggs will remain visible for about 20 minutes before the flotation solution distorts the eggs. Small black circles are air bubbles.

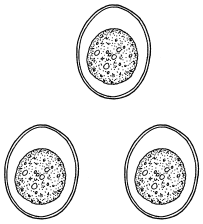
Interpretation of results

1. Fecal egg counts are a useful measure of potential pasture contamination.
2. Fecal egg counts are not mathematically correlated to worm numbers or to the severity of parasitic disease. A sheep or goat could be suffering from parasitic damage while showing an insignificant fecal count and vice versa.
3. Recommendations for deworming individual animals cannot be based on specific egg counts. But rather, the goal of fecal egg counting should be to monitor and maintain egg counts at low levels and to deworm when appropriate to keep contamination of pasture by worm eggs to a minimum.
4. The most appropriate application of egg counts is to compare the results of paired samples from the same animals before and after (7-10 days) deworming to determine the effectiveness of an anthelmintic treatment. Failure to achieve at least 90 percent reduction of fecal egg counts is suggestive of worm resistance. Severe resistance is present when egg count reduction is less than 60 percent.



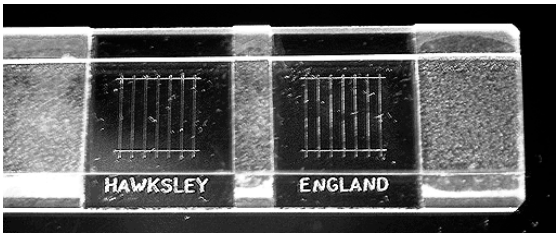
Tristrongyle eggs

Tapeworm egg



Coccidia eggs

McMaster slide



Prepared by Susan Schoenian.

Source: Paracount-EPG™ Veterinary Quantitative Fecal Analysis Kit. Chalex Corp. Issaquah, WA. www.vetslides.com. 5/04.