

McMaster Method for Quantitative Fecal Examination

The McMaster technique provides an estimate of worm burden by determining the number of nematode eggs per gram of feces. The advantage of this technique is that it is quick since the eggs are floated free of debris before counting.

Procedure:

1. Weigh out 2 grams of feces.
2. Add the fecal material to 60 ml of ZnSO₄ flotation solution (Sp. Gr. 1.18-1.20*) in a flask or beaker. Stir or swirl the contents vigorously to break down and homogenize the fecal sample. Pour the contents through a sieve or a cheesecloth-lined funnel into a second container. Use a tongue depressor or spatula to squeeze as much fluid as possible from the material left in the sieve or funnel.
3. While swirling vigorously to keep the material in suspension, aspirate a sample of the mixture with a pipette and carefully transfer it to one of the chambers of the McMaster slide. Repeat the procedure to fill the adjacent chamber. Wait 1-3 minutes to allow eggs to float to the top and debris to fall to the bottom of the chamber.
4. Under 10X power, count the eggs that fall within the gridded area of both sides of the chamber. (Do not count any eggs that fall outside the grid.) Multiply the total number of eggs in the 2 chambers by 100; this is the eggs per gram of feces. (EPG)

*Specific gravity of most commercially prepared solutions. Can be optimized for specific parasites.