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Vetlab Worm Egg Counting Method

Equipment Needed

- Microscope offering x40 and x100 magnifications, and mechanical stage (Cat No. 1932)
- 50ml plastic graduated measuring cylinder (Cat No. 0523)
- Ready-made Flotation Solution S.G. 1.200 (Cat No. 6107-1. 6107-5. 6108-1. 6108-5)
- McMaster 2 Cell Counting Slide (Cat No. Glass 6602. Acrylic 6603)
- Plastic Transfer Pipettes (Cat No. 0670)
- Plastic Bowl (Cat No. 6604)
- Tea Strainer & Tea Spoon

Procedure

1. Pour flotation solution into the measuring cylinder up to the 26ml mark.
2. Add faeces until the level rises to the 30ml mark.
3. Pour contents into the tea strainer whilst holding over the bowl.
4. Dip the tea strainer in and out of the bowl whilst also mixing faeces retained in strainer with the tea spoon.
5. Discard faecal matter retained in the tea strainer.
6. Mix faecal solution in the bowl with the tea spoon and immediately aspirate into a transfer pipette.
7. Transfer the sample to fill both chambers of the McMaster slide.
8. Stand on bench for at least 2 minutes and no longer than 5 minutes.
9. Transfer McMaster slide to the microscope stage.
10. Using x10 objective, focus on any corner of the first grid.
    (see counting diagram on Page 2 ✖)
11. Count worm eggs in total area of both grids and multiply by 25 to obtain final result in eggs per gram. **(see counting diagram on Page 2)**

Top Tips

1. Any worm eggs present will float to the surface of the special flotation solution and sit tight underneath the top slide of the counting chamber. In order to detect these eggs the microscope must be focused at this level. This can be achieved by sharply focusing on the edge of an air bubble or a grid line.

2. You can speed up the counting process by using our Acrylic McMaster slide with the x4 objective (x40 magnification). This allows you to view two columns of the grid at once. However, you need to be familiar with what the eggs look like at this lower magnification so first of all identify them with the x10 objective (x100 magnification) then switch to the x4 objective (x40 magnification). This will give you confidence, later on, to routinely scan using the x4 objective.

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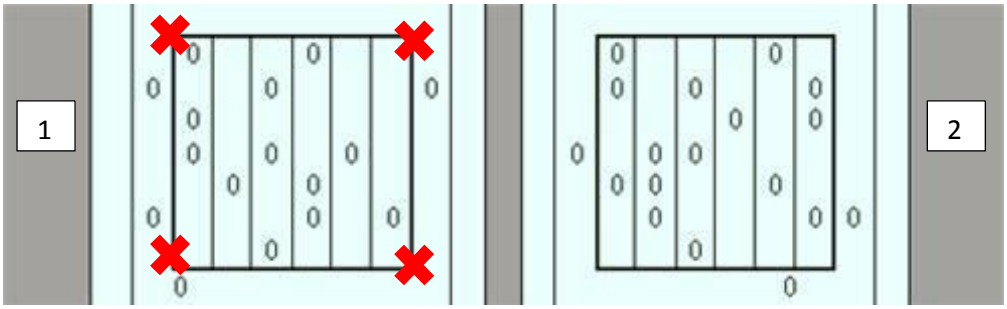
3. It is very important to use a flotation solution with a specific gravity which allows faecal material to sink and worm eggs to float. We supply flotation fluid which has been adjusted to a Specific Gravity of 1.200 which is ideal for floating most worm eggs. Do not be tempted into producing your own fluid by trying to saturate tap water with solute as Specific Gravity will vary considerably.

The number of eggs per gram can be calculated as follows:

- Count the number of eggs within the grid of each chamber, ignoring those eggs outside the squares.
- Multiply the total by 25 – this gives the eggs per gram of faeces (e.p.g.)

For Example:

✖ **=** Procedure 10.



12 eggs seen in chamber 1 and 15 eggs seen in chamber 2

= (12 + 15= 27) x 25 = 675 e.p.g

Important:
Do not delay reading the count beyond recommended time (see procedure: 8) as the flotation fluid may distort or destroy delicate eggs. Therefore it is advisable to only process a few samples at a time.

CLEANING

Clean the chamber by washing it in warm water using domestic washing up liquid applied with a soft cloth or soft brush. Rinse in clean water.

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