APPROVED
By: Waktole

SIMPLE TEST TUBE FLOTATION TECHNIQUE

The simple test tube flotation technique is a qualitative test for the detection of nematode and cestode eggs. This is a useful method to use in preliminary surveys to establish which parasite groups are present. Eggs are separated from faecal material and concentrated by a flotation fluid of an appropriate specific gravity.

Equipment List

Two beakers or plastic containers

Tea strainer or double layer cheesecloth

Measuring cylinder or container graded by volume

Fork, tongue blades or stirring rod

Test tube

Test tube rack

Microscope

Microscope slides and coverslips

Balance or teaspoon

Flotation fluid(they can be one of the following three solutions)

1. Saturated salt solution

Specific gravity: 1.18 - 1.20

General purpose solution.

Sodium chloride: 400 grams
Water: 1000 ml

- Stir thoroughly before use.
- May distort eggs.

2. Salt/sugar solution

Specific gravity: 1.28

General purpose solution.

Sodium chloride: 400 grams
Water: 1000 ml
Sugar: 500 grams

Dissolve the salt in water to make a saturated solution.

Add the sugar to the saturated salt solution.

Stir until the sugar is dissolved.

3. Sodium nitrate

Specific gravity: 1.18

This solution is sometimes used for strongyle eggs.

Sodium nitrate: 400 grams
Water: 1000 ml

Add sodium nitrate to water while stirring.

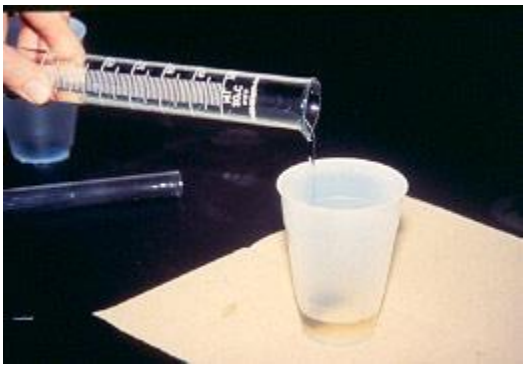
- May form crystals and distort eggs if left longer than 20 minutes.

procedure

1.Weigh or measure using a precalibrated teaspoon approximately 3g of faeces and put into container 1.

2. Pour 50 ml of flotation fluid into container 1.





3.Stir or mix faeces and flotation fluid thoroughly with a tongue blade or fork.



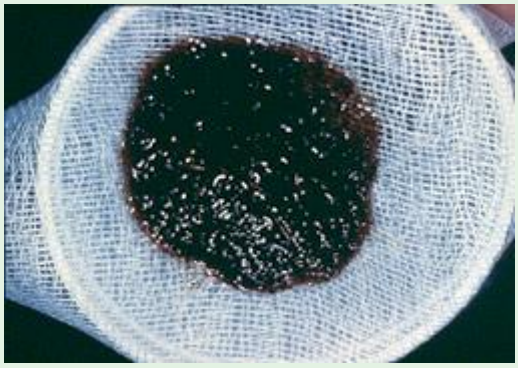


Procedure 4. Pour the fecal suspension as below.

our the faecal suspension through a tea strainer or double layer of cheesecloth into container 2.



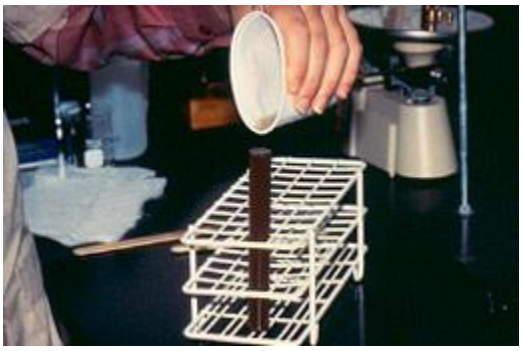




5. Pour the faecal suspension into test tube supported in a stand or rack from container 2.



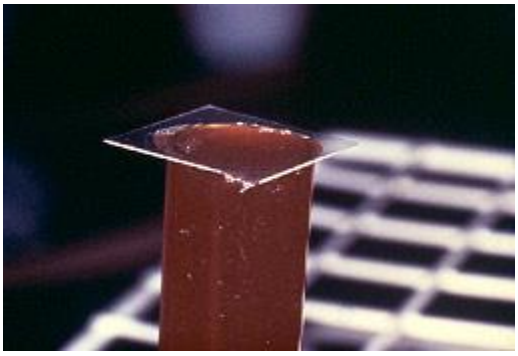
6. The test tube is gently topped off with the suspension leaving a convex meniscus at the top of the tube.



7. Carefully place a coverslip on top of the test tube.



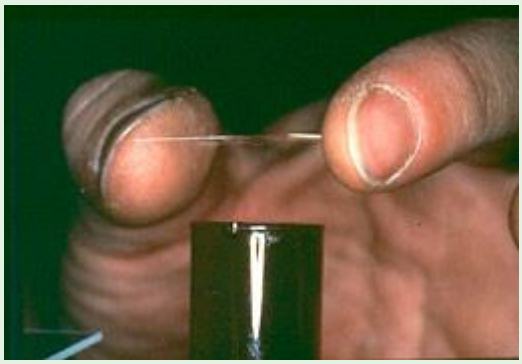
8. Leave the test tube to stand for 20 minutes.



Procedure 9

Carefully lift the coverslip off the test tube together with the drop of fluid adhering to it.

Place the coverlip on a clean slide.





10. Examine using a compound microscope at 10 x 10 magnification.





Ascaridia



Capillaria



Heterakis



Syngamus trachea



Trichostrongylus tenuis



Choanotaenia

Davainea proglottina



Raillietina

Commonly found
Ascaridia
Capillaria
Heterakis
Syngamus tra
Trichostrongylus te
Choanotaenia infundibu
Davainea proglo
Raillietina

Ruminant eggs: Commonly found eggs



Trichuris ovis



Nematodirus battus



Nematodirus filicollis



Strongyloides papillosus



Toxocara vitulorum



Moniezia



Fasciola hepatica



Paramphistomum



Strongyle

Commonly found
Trichuris
Nematodirus
Strongyloides
Toxocara
Moniezia
Fasciola
Paramphistomum
Strongyles