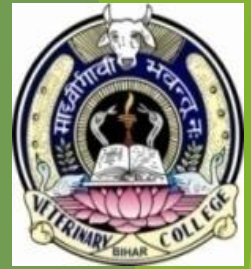




Faecal Examination Techniques (Practical)



Dr. AJIT KUMAR

Department of Veterinary Parasitology

Bihar Veterinary College

Bihar Animal Sciences University

Patna-800014

Faecal Examination Techniques

Points keep in mind when you are in the Laboratory :-

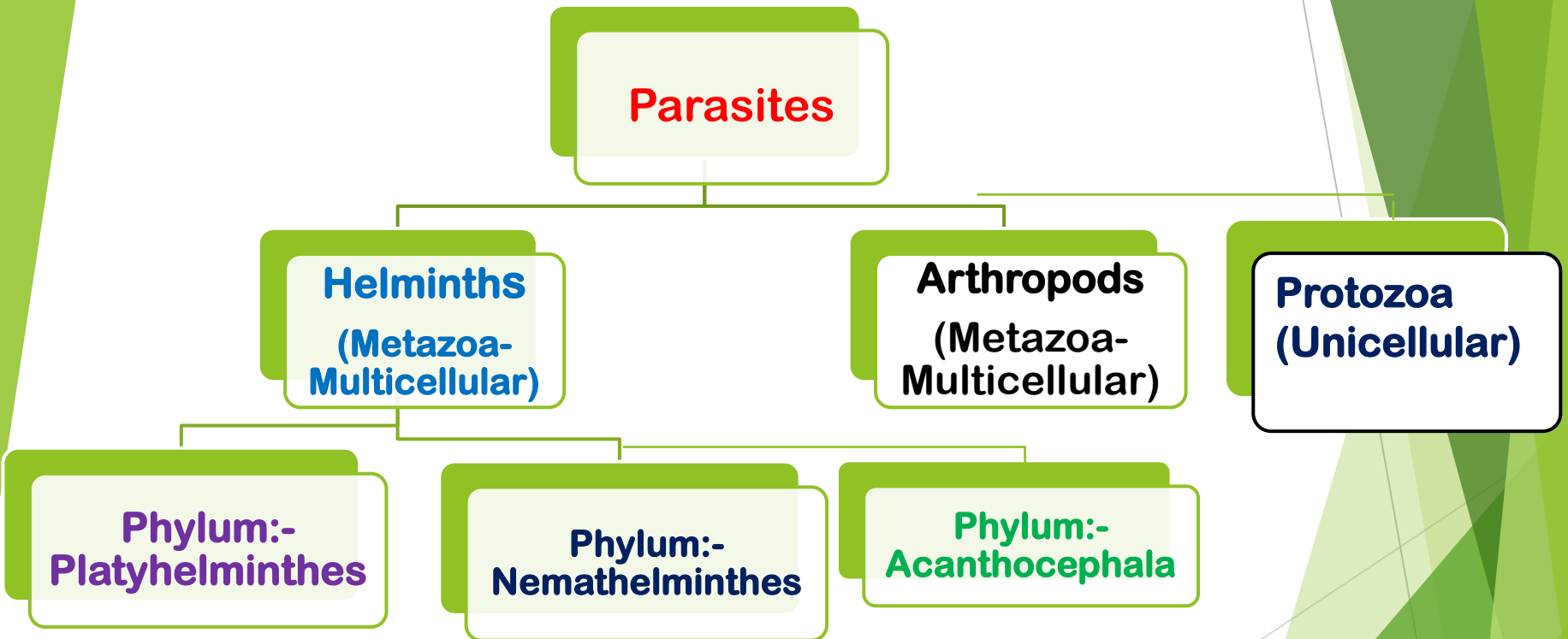
- Do come to laboratory with apron.
- Do handle equipments and specimens materials with care.
- Do clean your microscope before and after use.
- Do not leave the used slides and specimen in the microscope stage
- Do not pipette by mouth
- Do put paper and other solid wastes in the bins.



Faecal Examination Techniques

- Helminth parasites are a major threat to livestock production. It causes heavy economic losses of farmers due to decreased milk production, draught power capability and reproduction performance.
- Appropriate control measures against parasitic infections is mainly depend upon the detection of parasites.
- Diagnosis of parasites generally done on the basis of symptoms or detection of parasites or its stages from the materials collected from the herds and the flock by necropsy.

Faecal Examination Techniques



Faecal Examination Techniques

**Samples to be required for the
Diagnosis of Various Parasites :**

- ✓ **Faeces**
- ✓ **Blood**
- ✓ **Nasal scraping**
- ✓ **Urine**
- ✓ **Lymph node biopsy**
- ✓ **Skin scraping**
- ✓ **Sputum**

Faecal Examination Techniques

❖ **Faecal samples** – for the diagnosis of Gastrointestinal helminths parasites.

Examples :- *Fasciola hepatica*, Amphistomes, *Ancylostoma* sp., *Toxocara vitulorum*, *Haemonchus contortus*, *Strongylus*, *Oxyuris* etc.



Faecal Examination Techniques

Nasal discharge :-

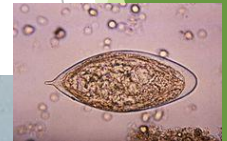
For the diagnosis of *Schistosoma nasale*.



Faecal Examination Techniques

Urine sample :-

For the diagnosis of kidney worms (*Stephanurus dentatus* in pig & *Dictyophyma renale* in dog) and *Schistosoma haematobium*.



Faecal Examination Techniques

Materials/ Equipments to be required for the Diagnosis of Gastro-intestinal parasites:-

- Specimen collecting vial
- Faeces
- Glass slide
- Tooth pick
- Cover slip
- Microscope
- Formalin
- Ethyl alcohol
- Lugol's Iodine
- Camel hair brush



Faecal Examination Techniques

Examination of faecal samples for parasitic eggs/larvae :-

Collection of faeces –

- **Faecal samples should be collected from the rectum of the suspected animals.**
- **In faeces, adult parasite, eggs, larvae, cysts, trophozoites or oocysts of parasite may be found.**

Preservation of collected faecal samples –

10 % Formalin or 70 % Ethyl alcohol.

Faecal Examination Techniques

Examination of faeces:

A. Gross examination of faeces –
for the presence of adult parasites
and segments of tapeworms.



Faecal Examination Techniques

Microscopic Examination of faeces:

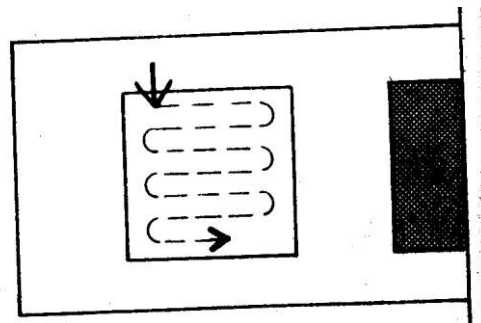
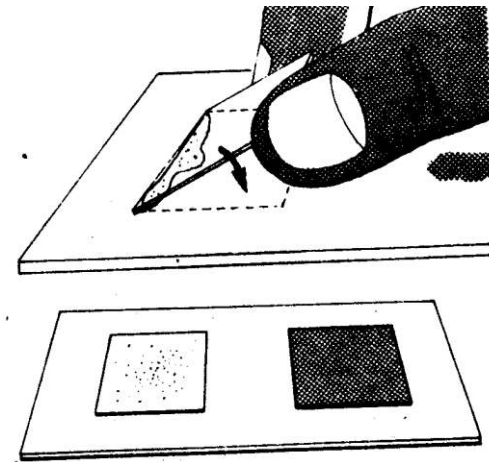
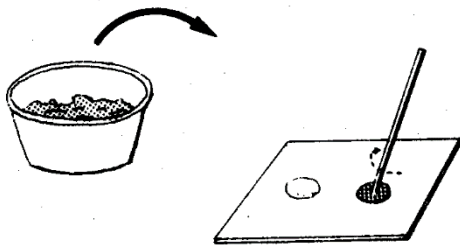
Direct smear method –

- A small quantity of fresh faeces is placed on a glass slide, mixed with few drops of water and spread it evenly on the slide, then place a cover slip over it and examine under the microscope.
- At least three slides from different parts of the faecal samples should be examined.
- This is a rapid method but usually fails to detect low grade infections.

Faecal Examination Techniques

Different Steps of Direct smear
method of faeces examination –

○



Faecal Examination Techniques

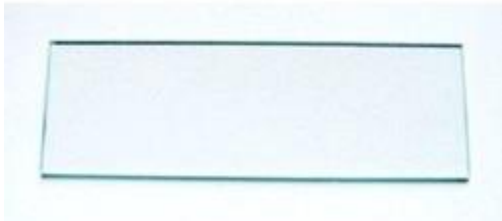
Faecal examination steps:-



Faecal Examination Techniques

Faecal examination steps:-

○



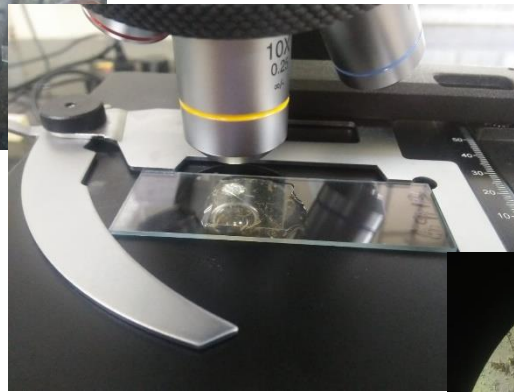
Faecal Examination Techniques

Faecal examination steps:-



Faecal Examination Techniques

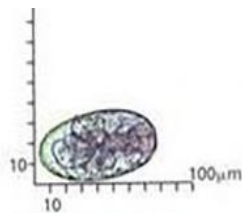
Faecal examination steps:-



Faecal Examination Techniques

Eggs of Parasites –

○



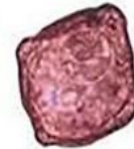
Ostertagia
(brown stomach worm)



Cooperia
(small intestinal worm)



Moniezia
(tapeworm - sheep)



Moniezia
(tapeworm - cattle)



Bunostomum
(hookworm)



Haemonchus
(barberpole worm)



Nematodirus
(threadneck worm)



Trichostrongylus
(bankrupt worm)



Oesophagostomum
(nodular worm)



Trichuris
(whipworm)



Strongyloides
(threadworm)



Coccidia
(a protozoan that causes coccidiosis)



Dictyocaulus
(lungworm)



Mite Egg - 1/4 actual size
(contaminant - often mistaken for worm eggs)

THANK U