



VERMIFORM NEMATODES

EXTRACTION TECHNIQUES

Nematode extraction techniques

SOIL SAMPLES

FREE-LIVING

1. Baermann funnel
2. Whitehead tray
3. Oosterbrink Elutriator

SEDENTARY

1. Beaker/filter paper
2. Flask method
3. Seinhorst Elutriator

WITHIN PLANT TISSUE

1. Baermann funnel
2. Mechanical maceration

Free-living nematodes

e.g. *Ditylenchus* spp.

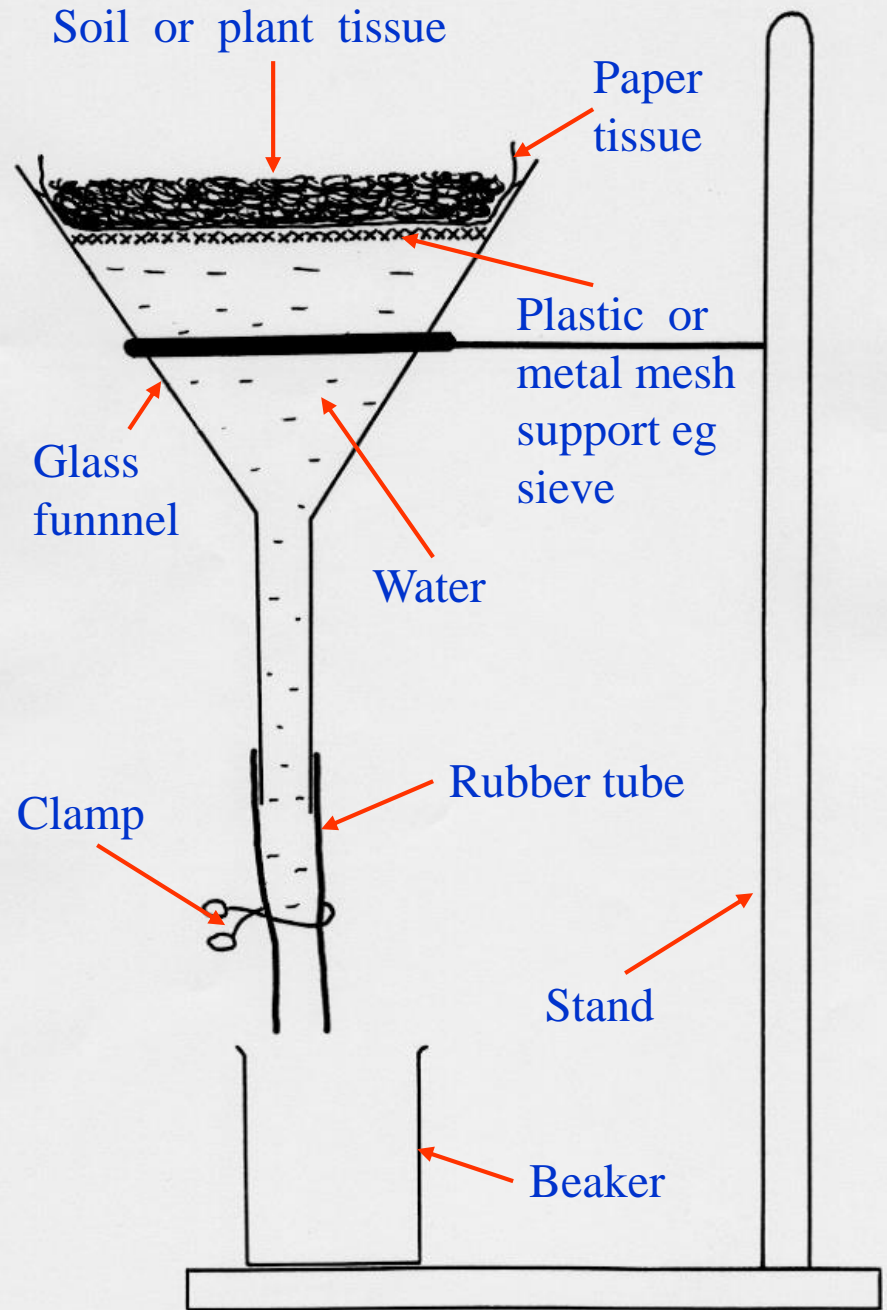
Aphelenchoides spp.

Bursaphelenchus spp.

Meloidogyne spp. (in soil)

Xiphinema, *Longidorus*,
Trichodorus spp.

Bearmann Funnel Apparatus



Modified Baermann Funnel (Poland)

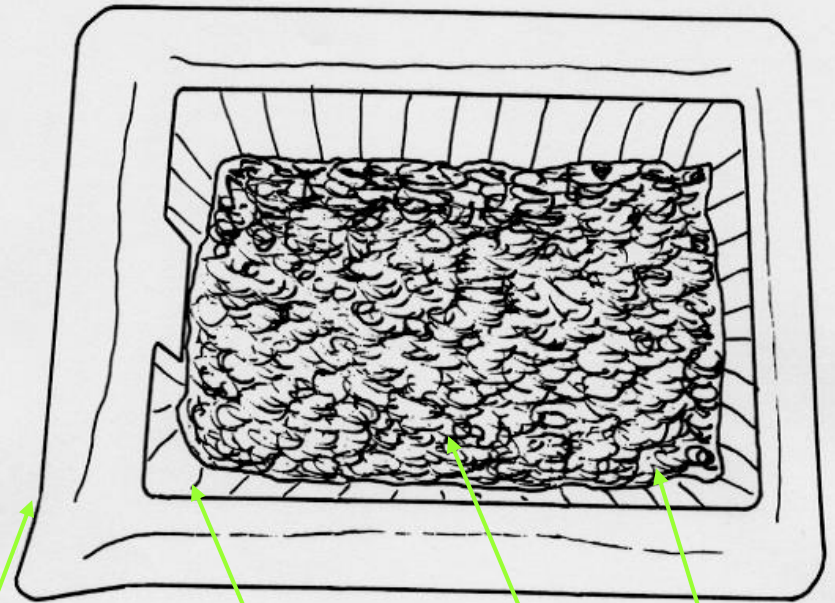


Modified Baermann method (Poland)



Whitehead Tray

Top view



Photographic
developing
dish

Soil or
plant tissue

Plastic coated
wire-letter
dish

Paper tissue

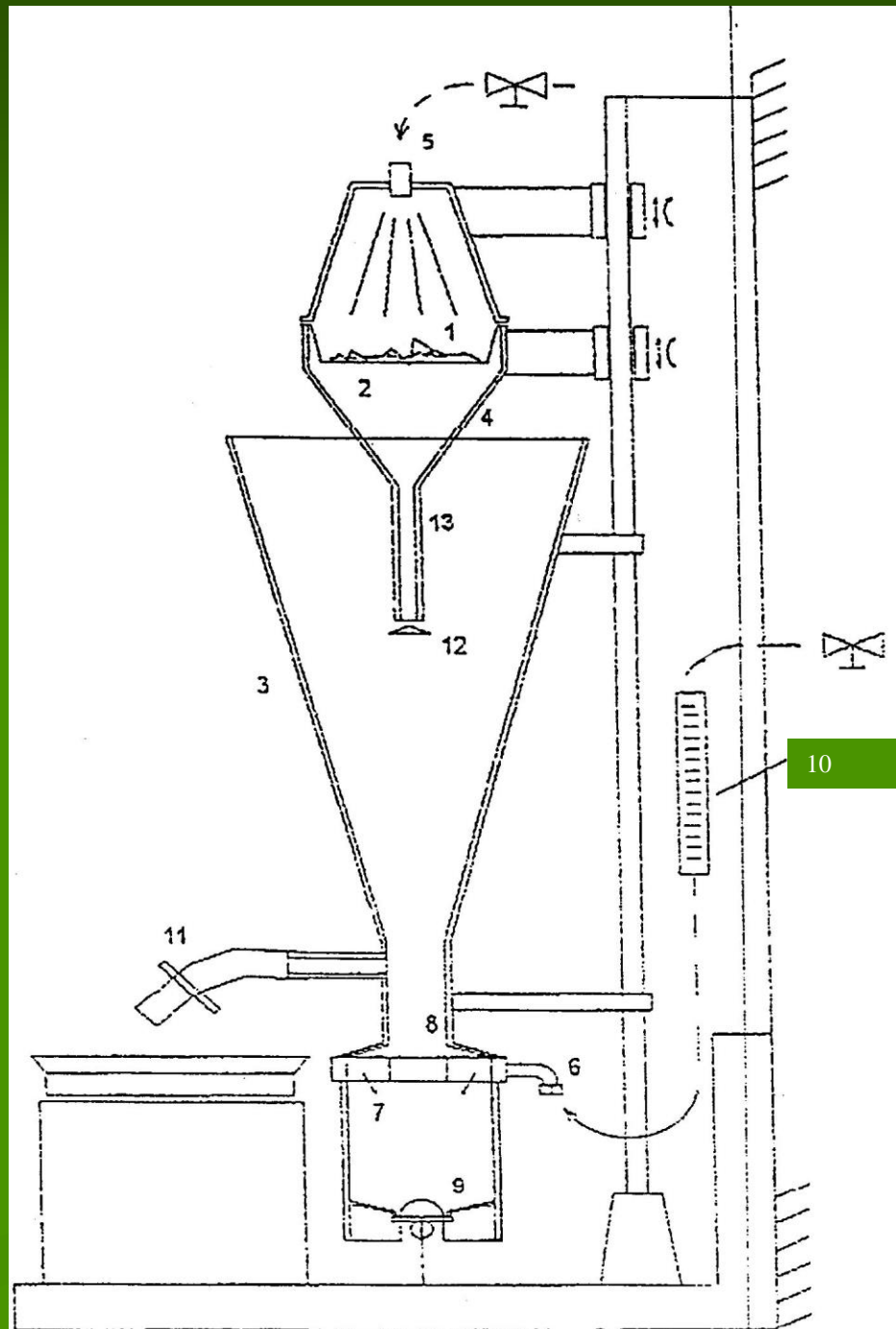


Side view

Water level

Modified Oostenbrink (MEKU)

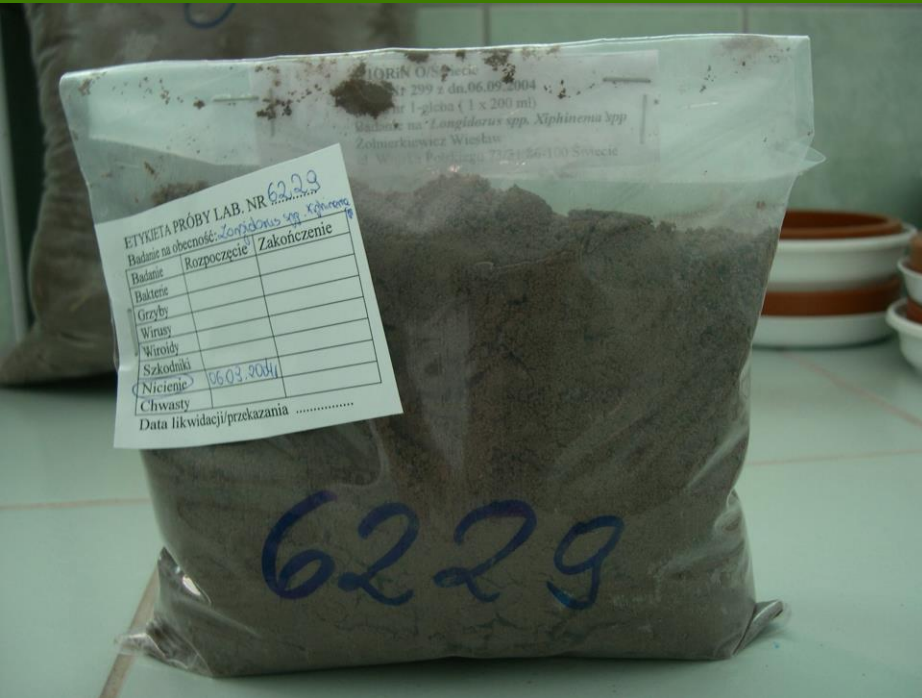
1. damp soil
2. 1 mm sieve
3. extraction chamber
4. cone
5. rinsing nozzle
6. bottom water inflow
7. ring nozzle
8. stricture
9. bottom valve
10. flowmeter
11. outlet hose clamp
12. outlet cone
13. maximum water level



Oostenbrink Elutriator (Meku)



Taking a sub-sample



Extracting process/flowmeter



Washing floated material into beaker



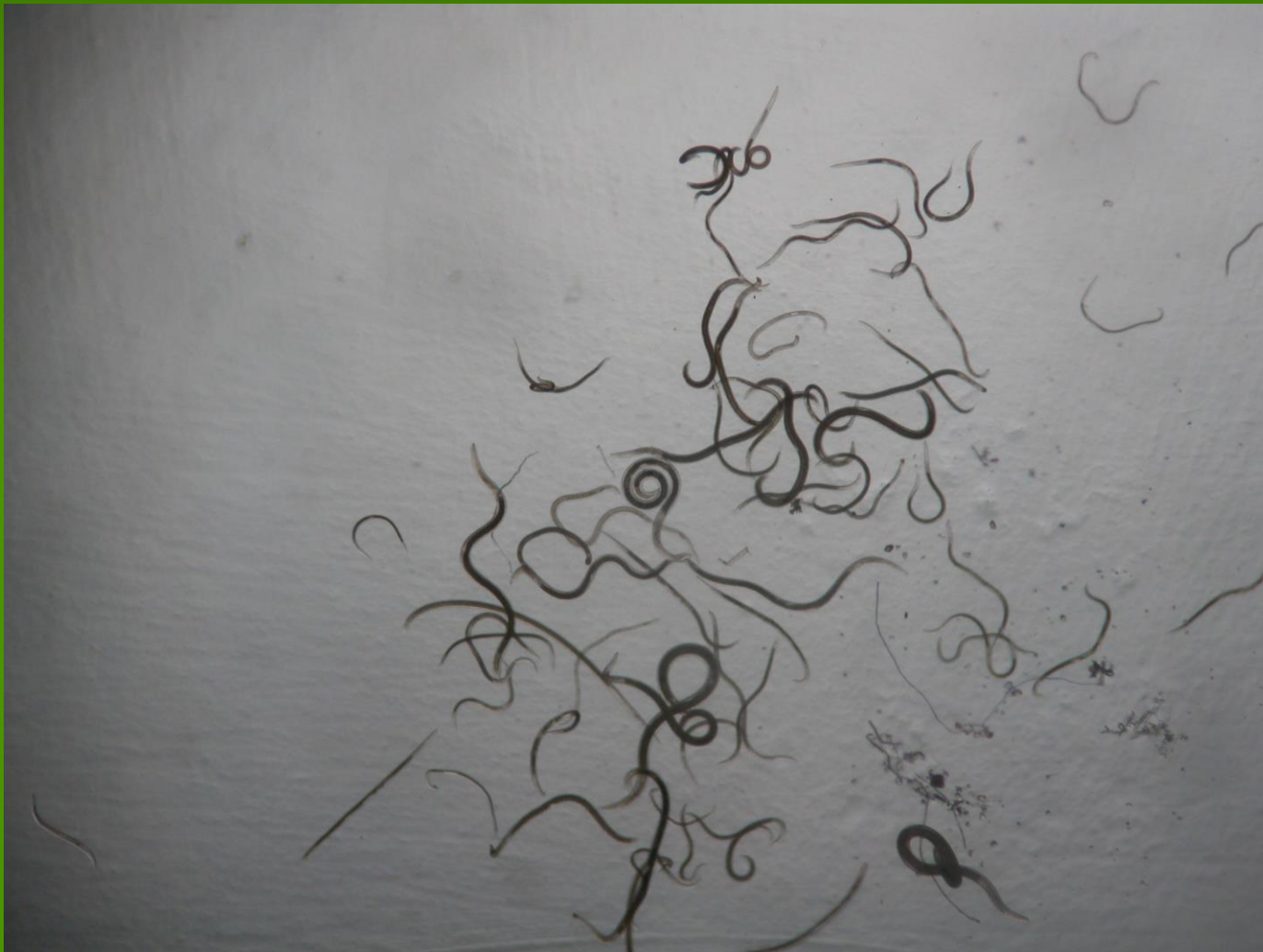
Suspension



Microscope examination of suspension



Nematodes in suspension

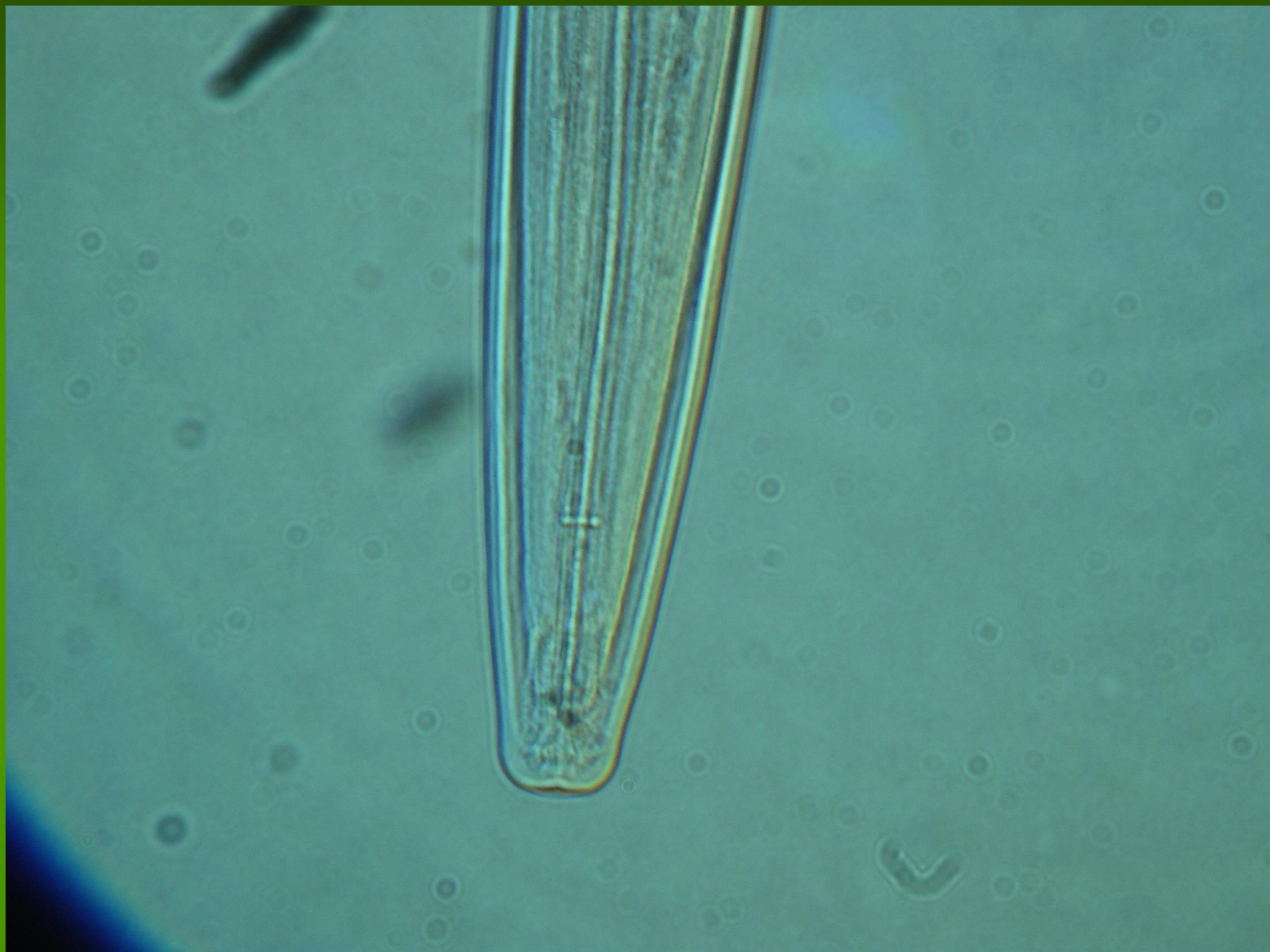


Preparation equipment



MAIN STEPS OF EXAMINATION

- **Extraction**
- **Removing from suspension**
- **Killing**
- **Fixing**
- **Slide preparation**



Endoparasitic nematodes

(nematodes within plant tissue)

e.g. *Ditylenchus dipsaci*

Ditylenchus destructor

Aphelenchoides besseyi

Aphelenchoides ritzemabosi

Anguina tritici

Meloidogyne spp. (adult female)

Endoparasitic nematodes

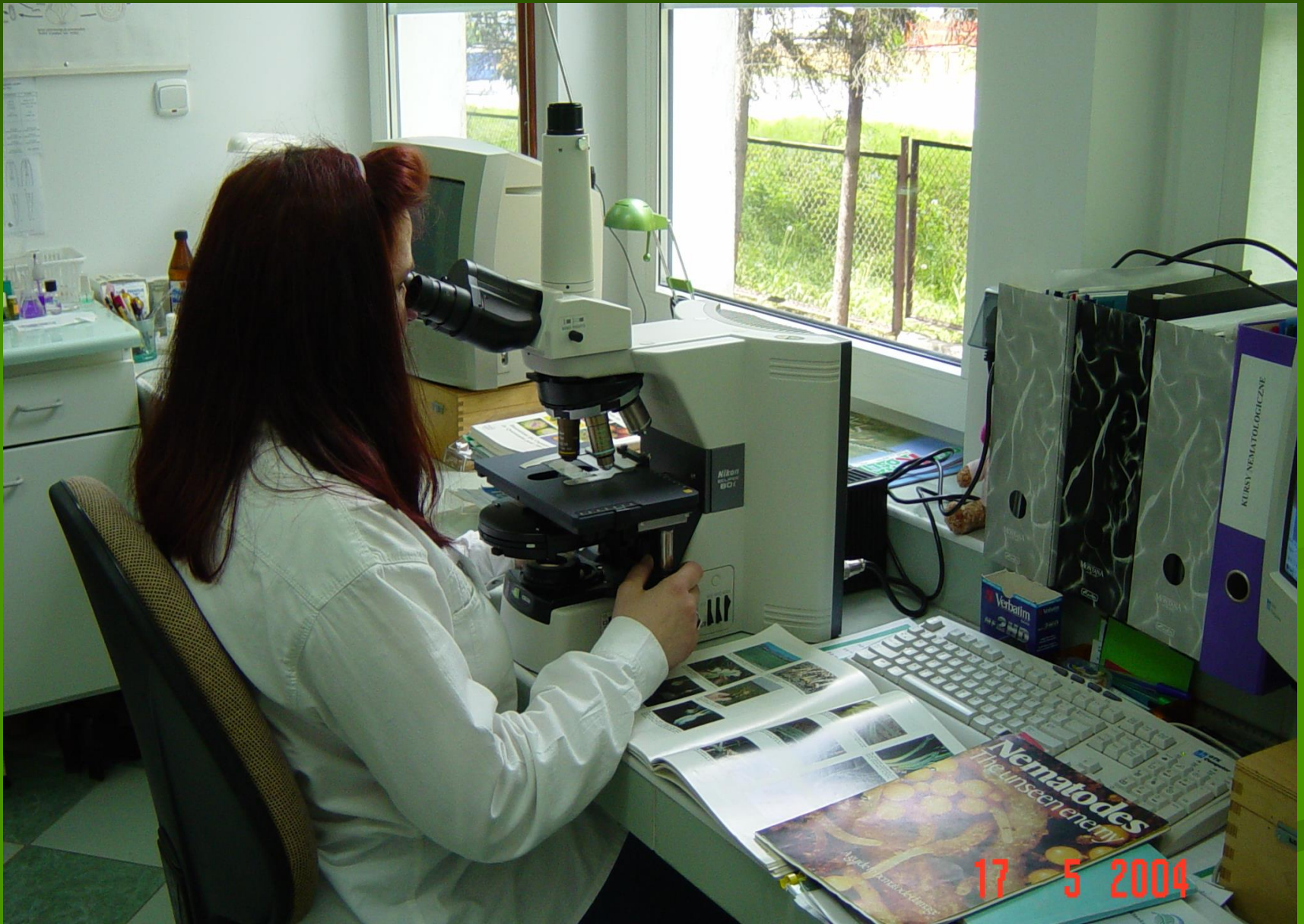
[nematodes within plant tissue]

1. Baermann funnel

2. Mechanical
maceration

Modified Baermann method (Poland)





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