techcyte

Fusion Parasitology Suite

Sample & Slide Preparation

Trichome Solution & Modified Acid Fast Solution

The Algorithm

Techcyte's Fecal Ova & Parasite screening solution is a revolutionary screening tool that is designed to help lab technologists read Trichome & MAF stained slides more efficiently and accurately using our AI-based algorithm, lab-optimized workflow, and LIS integration.

1. Prepare Samples

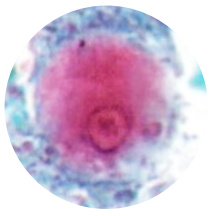
Shake or vortex the incoming preserved sample to thoroughly mix. Transfer either **2ml (US Gold Standard)** or 3ml **(ARUP JCM)** of the emulsified stool into the Mini Parasep® SF mixing chamber.

In the event of:
Thick Stool Samples—add 10 drops of Triton X, then enclose and shake or vortex to emulsify prior to transferring the sample.

Liquid Stool Samples—add 4ml instead of 2ml or 3ml to ensure that a sediment is formed after centrifugation is performed.

2. Emulsification

Seal the Mini Parasep® SF by screwing in the filter/sedimentation cone unit.



3. Centrifugation

Invert Mini Parasep® SF and perform centrifugation at: 500g for ten minutes (US Gold Standard); 400g for two minutes (ARUP JCM).

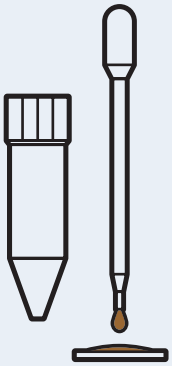
NOTE: TO CALCULATE THE REQUIRED RPM FOR ANY CENTRIFUGE

$$RPM = \sqrt{\frac{g}{1.12r}} \times 1000$$

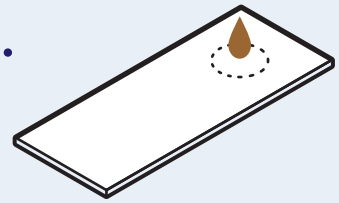
RPM - rotor speed in revs/min.
g - centrifugal force (max.1000g)
r - radius, horizontal distance between sedimentation cone tip and spindle center measured in mm.

4. Create a Monolayer

Unscrew and discard the filter and mixing tube. Decant the supernatant. Sample maybe resuspended with a drop of fixative for transfer.

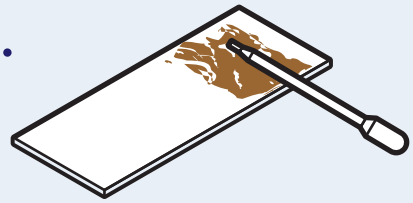


a.



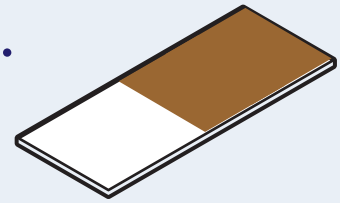
a. Transfer a drop of resuspended sediment to one end of a microscope slide, roughly 1-2 cm from the edge.

b.



b. Using the long/flat edge of a spreading stick/device, carefully move the liquid to the near edge of the slide.

c.



c. In a back and forth motion, allowing the liquid to spread evenly across an area similar in size to that of a microscope coverslip.

5. Stain Slide

Standard staining protocols can be found at:
cdc.gov/dpdx/diagnosticprocedures/stool/staining.html

6. Add Coverslip

Coverslip the stained slide using an automated coverslip machine.

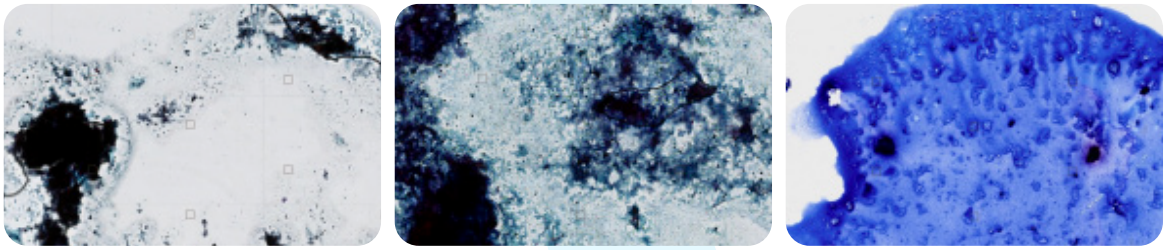
7. Scan Slide

Scan the slide with the appropriate scan profile on the whole slide scanner.

Ensuring Optimal Slide Preparation for Digital Scanning

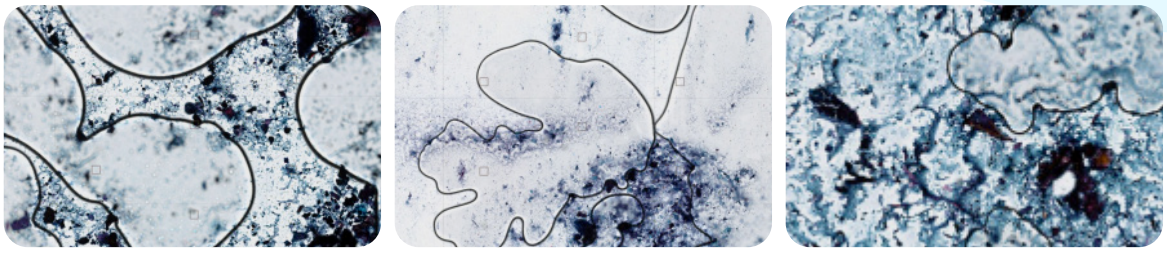
Poor Slide Depth:

⊗ **Excessive Thickness:** Avoid slides that are too thick or contain large clumps.

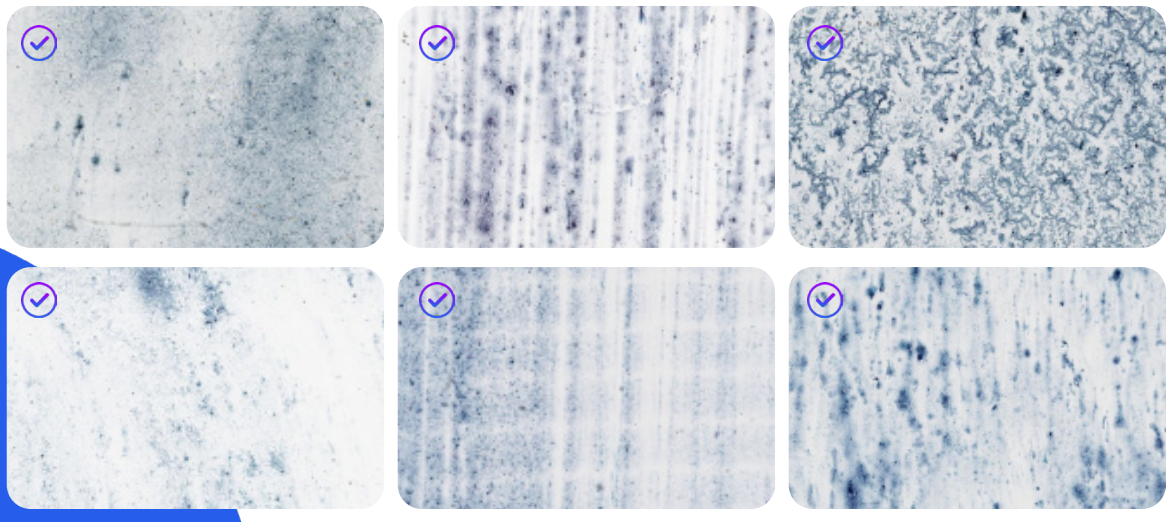


⊗ **Insufficient Thickness**: Slides that are too thin lack sufficient material for analysis.

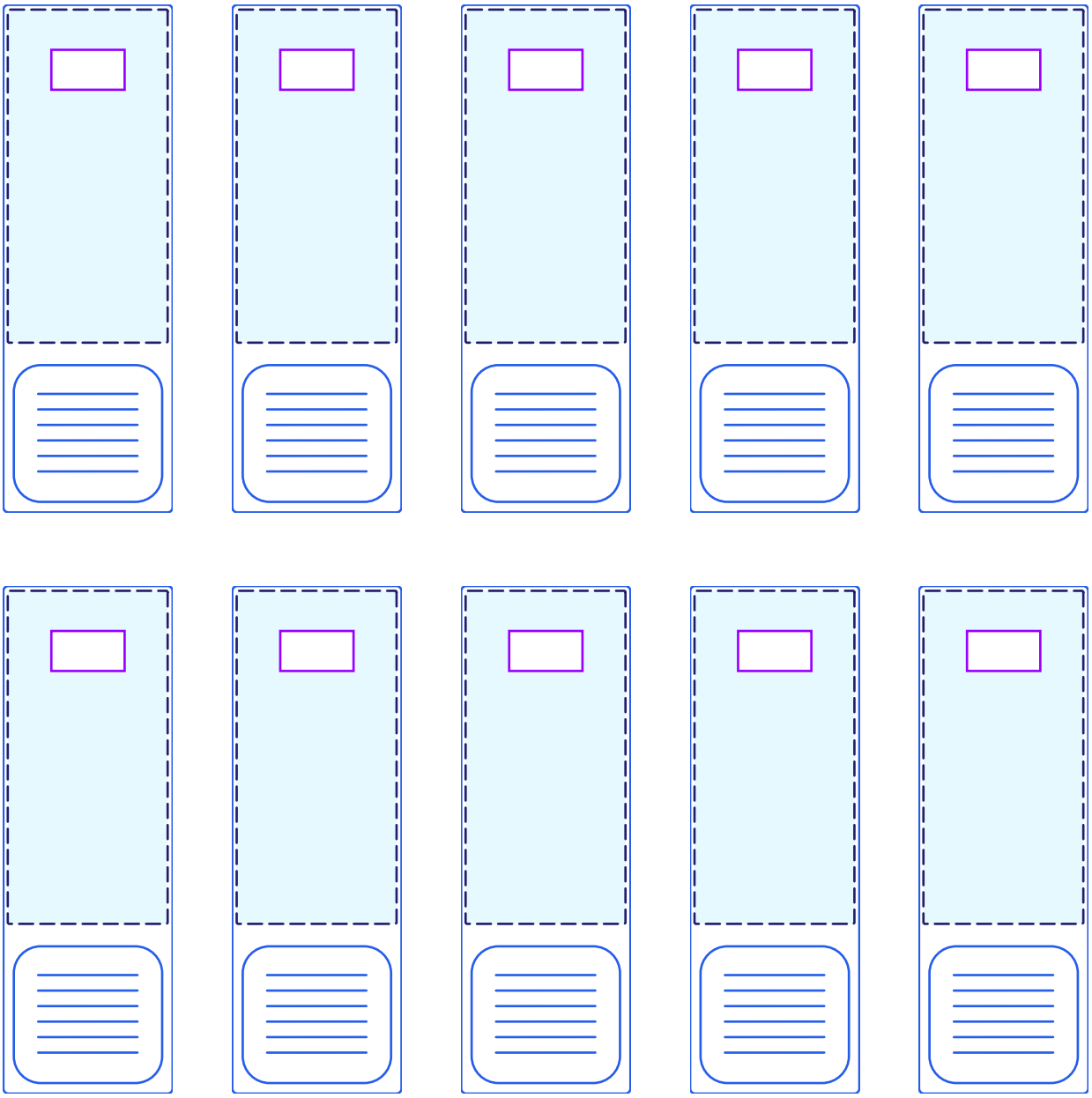
⊗ **Presence of Bubbles:** Ensure slides are free from bubbles



Optimal Slide Depth:



The Slide Template



The Slide Legend

- **Label**
- **Potiental Coverslip Area:** Coverslipping is required but various sizes are accepted
- **Scan Area** for a whole slide image digital scanner