

IODINE-LACTOPHENOL AS A MYCOLOGICAL MOUNTING MEDIUM

Alan Hawkswell

1, Whitecote Gardens, Bramley, Leeds LS13 2HZ

On examining the spores of Russulaceae in Melzer's reagent under the microscope and subsequently mounting them in lactophenol, I found that the iodine staining faded, rendering details of the spore ornamentation indistinct.

Experiments were carried out using different mountants and it was found that by adding a quantity of iodine to lactophenol its staining intensity was enhanced, it did not fade and details of spore ornamentation remained clear.

200 milligrams of iodine crystals and 400 milligrams of potassium iodide were thoroughly ground together in a mortar. 10 millilitres of lactophenol were then slowly added to the mixture, stirring all the time.

Staining and mounting routine.

1. Take a small piece of gill tissue, place it on a microscope slide and add a drop of Melzer's iodine.

2. Place a cover glass over the specimen, cover with a strip of filter paper and exert firm pressure with a finger to compress the gill tissue.

3. Pour a few drops of distilled water over the slide, gently remove the cover slip and carefully pour off the surplus water.

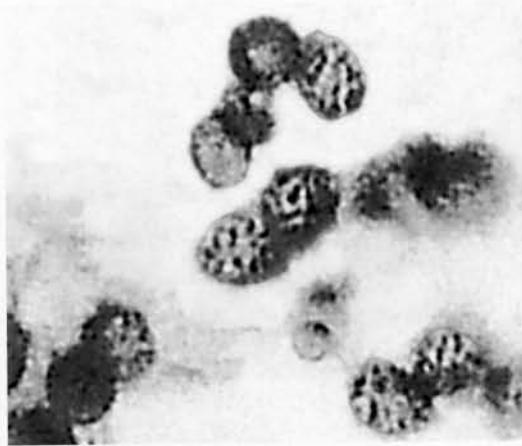
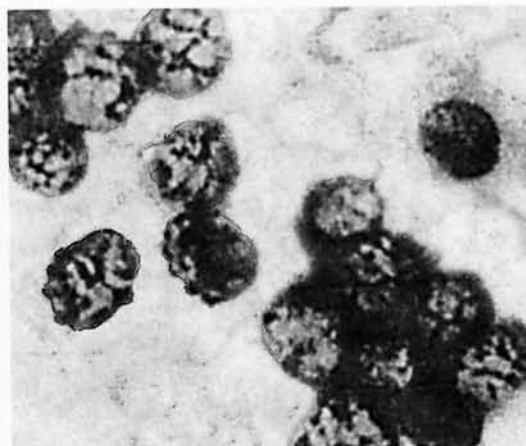
4. Give the specimen a second rinse with distilled water, pour off the surplus water and blot dry with tissue.

5. Add a drop of iodine-lactophenol and place a cover slip over the specimen, carefully avoiding air bubbles.

6. Remove the surplus iodine-lactophenol with tissue and seal the cover glass with nail varnish.

All specimens mounted in lactophenol must be sealed with nail varnish or a similar sealant if it is intended to keep the slide on a permanent basis.

I have been using this method for the last 18 months and my specimens have retained their stain and their ornamentation details and have remained crisp and precise as shown by my two photomicrographs of *Russula betularum* and *R. urens*.



Spores of *Russula betularum* (left) and *R. urens* (right) stained with iodine-lactophenol solution.