

Filtering small quantities of conidial suspensions to remove mycelial fragments

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This method was in common use in the Tatum lab in the 1940's, but was apparently never published. One simply sucks the suspension through the cotton plug of a pipette, used upside-down. Graduated pipettes from 1 to 10 ml work well.

Plug the pipettes at what is normally the top (nonpointed) end, but leave 1 cm of cotton protruding. Plugs should be tight enough to stay in securely, but should not be difficult to pull out. Twist the protruding cotton from each pipette into a point with moistened fingers, and cut off a few millimeters from the end of it, so that it will lie straight and not tangle with the cotton protruding from the other pipettes. Sterilize pipettes in a canister with the plugged ends at the bottom.

To filter, put the plugged end of an upside-down pipette into the conidial suspension and press it against the bottom of the tube or flask so that the protruding cotton is bent to one side and held in place, to prevent its being sucked into the pipette with the suspension. If the suspension is hard to suck into the pipette, the plug is too tight. In that case, use a different pipette; otherwise most of the conidia will get stuck on the cotton. After sucking up the suspension, remove the cotton plug with sterile forceps. (Have a receptacle handy to receive the contaminated plug and forceps.) Let the filtrate run into a sterile tube without allowing the pipette to touch the tube, because unfiltered material is present on the outside of the pipette. Don't blow the filtrate out, because there is no plug in the pointed end of the pipette.