

A Rapid Method for Separating Larvae from a Mixed Population of *Panagrellus redivivus*¹

FRANK KRIGER and M. R. SAMOILOFF²

During the course of biochemical and genetic studies with *Panagrellus redivivus*, we required large numbers of sexually immature nematodes. Initially we used filtration through glass beads, a method devised to obtain size-synchronized cultures (1, 2, 3). However, these methods were found to be inefficient because large losses of nematodes were encountered. We now use a simple, rapid, and inexpensive method to separate juveniles from either axenic or xenic populations of *Panagrellus redivivus* containing all stages of the life cycle.

The population of nematodes from cultures are washed, concd by centrifugation at 900 g for 10 min and placed in 15-mm diam test tubes. A "Unichem Filter Sampler" (Unichem Corp., Fairburn, Georgia) is forced down the length of the tube. This device consists of a filter (effective pore size 10 μm) mounted in a rubber gasket which is attached to a plastic collecting tube (Fig. 1). When fitted into the test tube, the gasket forms a seal. Displaced fluid, containing only juvenile nematodes, is forced through the filter into the collecting tube (Fig. 2). This fluid is decanted from the Filter Sampler. The nematodes remaining in the test tube are highly concd.

This method has several advantages over previous methods: (i) simplicity, (ii) minimal loss of animals, and (iii) high concn of animals. The method cannot be used to obtain synchronous cultures because all juvenile stages are obtained.

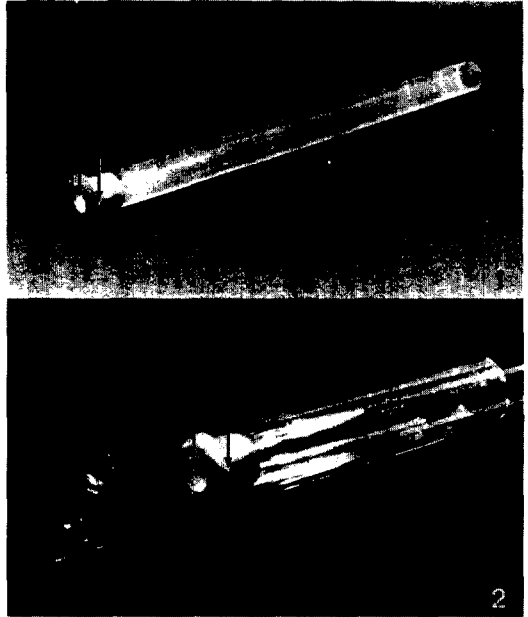


FIG. 1-2. The "Unichem Filter Sampler". 1) A filter of 10 μm effective pore size (A) is mounted in a rubber gasket (B). The filter leads to a collecting tube (C). 2) Filter Sampler inserted into a 15-mm diam test tube. Gasket (B) seals against walls of test tube, forming chamber (D) containing a suspension of adult nematodes, larvae, and eggs. As fluid in "D" is displaced by insertion of the Filter Sampler, immature nematodes and fluid pass through filter to collecting tube (C), while volume of chamber (D) decreases resulting in further concn of the remaining nematodes.

LITERATURE CITED

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²Department of Zoology, University of Manitoba, Winnipeg, Manitoba, Canada.