SE2 (Soil Extract 2)

Freshwater and terrestrial protozoa

Preparing the soil

The soil most likely to give good results is that known as a "good garden loam", preferably slightly alkaline (the final pH of this extract should be ~7.1). Site selection for a good soil is very important; sites to avoid are those showing obvious signs of man's activity and particular care should be taken to avoid areas where fertilizers, crop sprays or other toxic chemicals may have been used.

Calcareous loam with good crumb structure should be sought. Stones, roots, and larger invertebrates should be removed during an initial sieving through a 1 cm mesh. The sieved soil should be spread to air dry or placed in a drying oven at around 50°C. When dry, the soil is sieved again through a finer mesh (2-4 mm) and stored in an airtight container away from light and heat.

Medium

Soil is prepared as above. Dried soil and twice its volume of supernatant deionised water are autoclaved together at 15 psi and 126°C for 20 minutes. After the mixture has cooled, it is then autoclaved for a second time at 15 psi and 126°C for 20 minutes. After the mixture has cooled, the bottle is sealed with parafilm and left undisturbed on a shelf for around two to three weeks in order to allow the sediment to settle at the bottom.

After the resting period, using aseptic technique, the supernatant is then decanted and distributed into sterile containers taking care not to disturb the settled sediment at the bottom. After decanting, the final soil extract is autoclaved for a third time at 15 psi and 121°C for 15 minutes. After the soil extract has cooled, the bottle is sealed with parafilm and stored in the fridge.

Reference

Belcher, H., & Swale, E. (1982; reprinted 1988) Culturing Algae: A Guide for Schools and Colleges. Culture Collection of Algae and Protozoa; NERC.

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