

## MERds (Modified Føyns Erdschreiber Medium)

Marine protozoa

<b>Stock</b>		<b>per 100 ml</b>
	(1) NaNO <sub>3</sub>	20.0 g
	Na <sub>2</sub> HPO <sub>4</sub>	1.2 g
<b>Medium</b>		<b>per litre</b>
	Soil extract with salts (SES) - see below	100.00 ml
	Stock solutions (1) and (2)	1.0 ml each
	Filtered seawater	898.0 ml

Mix the above constituents and autoclave at 15 psi for 15 minutes. It may be necessary to filter final medium to avoid problems with precipitate.

## SES (Soil Extract with Added Salts)

<b>Stocks</b>		<b>per litre</b>
	(1) K <sub>2</sub> HPO <sub>4</sub>	1.0 g
	(2) MgSO <sub>4</sub> ·7H <sub>2</sub> O	1.0 g
	(3) KNO <sub>3</sub>	10.0 g
<b>Medium</b>		<b>per litre</b>
	Stock solutions 1 - 3	20.0 ml each
	Soil extract (*SE - see overleaf)	100.0 ml

\* At the CCAP, SE1 is used for marine algae, SE2 for freshwater and terrestrial protozoa.

Make up to 1 litre with deionized water and autoclave at 15 psi for 15 minutes.

## SE1 (Soil Extract 1)

used in media for marine algae and protozoa

### Preparing the soil

Site selection for a good soil is very important and for most purposes a soil from undisturbed deciduous woodland is best. 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.

A rich 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 and hand picked for smaller invertebrates and roots. It should be turned periodically and picked over again. When dry it may be sieved through a finer mesh (2-4 mm) or stored as it is prior to use.

### Medium

Soil is prepared as above. Air-dried soil and twice its volume of supernatant distilled water are autoclaved together at 15 psi for 2 hours and left to cool. The supernatant is then decanted and filtered through Whatman No 1 filter paper, then distributed to containers in volumes suitable for making up batches of media. The aliquots and their containers are autoclaved for an appropriate length of time (e.g. 1 litre or less for 15 minutes) and are then kept in a cool place (e.g. a refrigerator) until required.