

# Guernsey Sea Farms

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## Tips on handling Acartia and Tisbe copepods

- On arrival **measure water quality** parameters and record observations on condition of stock on our datasheet / delivery note. If possible, check the level of micro algae present..
- Allow organisms to equilibrate to room **temperature** naturally over 1-2 hours. The bottles they came in were chilled to 13°C prior to despatch and should arrive cool.
- Pour into open topped containers and **reduce the density** to less than 100 per litre by adding filtered seawater (1). Check algae level and add more if required: see ISO method (3). As rough guide add the 10-30 mls of algae supplied with the shipment to about per litre of seawater.
- Arrange **gentle aeration**. This is simply achieved with a glass tube fed from an 'aquarium type' pump to give single bubbles of air.
- The **condition** of the culture is usually obvious by the swimming activity of adults and there should not be more than 5% dead in a culture. The rate at which the algae is cleared is also a good indicator.
- It is important to be aware that Acartia are physically quite fragile. When you need to reduce the volume of water down either to give them a fresh water change or to concentrate them at the start of a test they must not be poured onto a mesh. Instead, excess water should be siphoned through a suitable sized mesh (ideally between 150 and 200 microns) leaving the copepods behind in the container. Tisbe, on the other hand are quite robust and can be collected on a 120 micron mesh without damaging them.

## NOTES.

(1) If you have any doubt about the quality of your seawater, consider ordering some from us. This will not necessarily be better quality but at least it is the same as the animals have been cultured and transported in.

(2) We supply algae free of charge with copepods. Normally we will supply a mixture of 2 or 3 species with details on the datasheet. To maintain this culture pour into glass flask and aerate vigorously about 12" from fluorescent light at 15-20°C. It should last for at least 48hours. Consult us if you require for longer periods.

## REFERENCES

(3) see ISO 1994 'Determination of acute lethal toxicity to marine copepods' . Feeding table is reproduced as table 8A.2 in WRc /NRA R&D Note 322 manual.