ORNAMENTAL AQUATIC TRADE ASSOCIATION LTD

"The voice of the ornamental fish industry"

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OATA water quality criteria

Below are the minimum standards for the different types of stock found in the aquatics trade. It is worth noting that although the free ammonia and nitrite levels are above 0, these can only be tolerated for a short period of time and should not be considered ideal for long term care. Should there be a spike in ammonia or nitrite, all effort should be made to return these values to 0 as quickly as is possible. These parameters should be maintained at all times, even if stock is under treatment.

A more detailed description of water chemistry parameters and explanations on how to achieve the highest standards of water quality can be found in our training programmes.

Cold Water Species:

Free Ammonia	- 0, but max 0.02mg/l
Nitrite	- 0, but max 0.2mg/l
Dissolved Oxygen	- min 6mg/l
Nitrate	- max 50mg/l above ambient tap water

Tropical Freshwater Species:

Free Ammonia	- 0, but max 0.02mg/l
Nitrite	- 0, but max 0.2mg/l
Dissolved Oxygen	- min 6mg/l
Nitrate	- max 50mg/l above ambient tap water

Tropical Marine Species:

Free Ammonia	- 0, but max 0.01mg/l
Nitrite	- 0, but max 0.125mg/l
pH	- min 8.1
Dissolved Oxygen	- recommended 5.5mg/l (never lower than 4.0mg/litre)
Nitrate	- max 100 mg/l

Water Quality Testing:

Water quality testing should be carried out at least once a week in centralised systems. In individually filtered aquaria or holding vats at least 10% of them should be tested in the same way at least once a week. Unsatisfactory results must be recorded in a register together with the corrective action taken. Further tests must be carried out when visual inspection of the tanks indicates the need, for example if there are obvious signs of destress or after the addition of new stock to the system. While no general rule for the normal

behaviour of all fish can be given, if they are gasping at the surface, or normally active species are lethargic, then water quality testing or other investigation may be necessary.

Tests should be undertaken at different times of the day to ensure that the readings are representative of normal conditions in the aquarium or pond.

If livestock is being housed temporarily (i.e pond fish in a temporary pond), it is recommended that water is tested at least daily to ensure that water quality stays within the above parameters.

Only trained staff should manipulate water chemistry. Before any water change is conducted, it is important to ensure that new water added to any system is similar in hardness, pH, temperature and dissolved oxygen to that in which the livestock are currently being kept. This is to reduce shock and limit unnecessary stress.