

Water Quality Basics

The table below is a guide to optimal water parameters recommended for different types of fish as found in their natural habitats.

Typical Melbourne tap water	pH	gH	kH
<i>(Results will vary in different areas)</i>	6.0-8.0	2-3°	<1°
Optimal Results	pH	gH	kH
Asia	7.0	7-9°	5-6°
Central America	7.0-7.5	8-12°	7-8°
Community	7.0-7.5	8-12°	7-8°
African - Malawi	8.0-8.5	5-12°	5-12°
African - Tanganyika	8.0-8.5	10-15°	13-20°
West African	6.5	7-9°	5-6°
Tropical Rainforest	6.5	7-9°	5-6°
Killi fish	6.5	7-9°	5-6°
Coldwater	7.0	8-12°	7-8°
Pond	7.0	8-12°	8-10°

Boronia Aquarium recommends owning a master test kit so you can easily monitor water parameters in your aquarium.



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Water Quality Basics

The key to fish health in an aquarium is understanding and controlling water quality. In nature fish live in a range of water conditions and in order to provide the specific water parameters required by different types of fish, Melbourne tap water needs to be treated with the appropriate additives.

pH:

Is a measure of the acidity or alkalinity in aquarium water. pH will usually drop over time due to the build up and break down of organic waste. Adding the correct KH generator is essential to raise (buffer) and stabilise pH. Be aware that some gravel, rocks and ornaments can raise pH to levels unsuitable for some fish species (see B.A. staff for further information).

Hardness:

There are two types of water hardness: general hardness (gH) and carbonate hardness (KH). Total hardness is a combination of gH and KH. Total hardness measurements can be misleading and should be avoided as it is important to monitor gH and KH separately.

gH (General Hardness):

Is a measure of the mineral content in aquarium water (calcium and magnesium ions) and affects the transfer of nutrients and waste products through cell membranes.

KH (Carbonate Hardness):

Is a measure of the carbonate levels in aquarium water (bicarbonate and carbonate ions). Carbonates act as a chemical buffering agent, they help stabilize pH and are utilised by plants.

Melbourne tap water is very soft, usually with a gH of 2°-3° and a KH of 0. Both these parameters will therefore need to be raised. gH and KH generators vary in their specific compositions and the type you need to add will depend on the variety of fish you wish to keep. B.A. recommends Seachem gH and KH generators as they are phosphate free.

Water Ager:

There are a number of products that use this term. A good quality water ager will eliminate chlorine and chloramines (harmless to humans but potentially deadly to fish), whilst providing essential electrolytes along with a stress coat to protect the mucous membrane of fish. Sera Aquatan is ideal for this purpose as it is fast acting and will also clarify water and reduce fish stress during transport and introduction to a new aquarium.

Tips

- Healthy plant growth is the key to healthy fish as they absorb waste products from water (see B.A. Plant Tank Basics care sheet).
- Regularly test your water for ammonia, nitrite & nitrate levels to ensure your biological filtration is sufficient, you are maintaining it adequately & your aquarium is not over stocked or overfed (see B.A. Biological Basics & Filter Maintenance care sheets).

When treating Melbourne tap water to make it suitable for fish keeping, we recommend



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