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Fact Sheet

Setting up a freshwater aquarium

Freshwater aquariums house goldfish and other species that do not require a heating apparatus.

In a new tank set-up, water should be conditioned and filters, heaters etc. should be running for at least seven days before the introduction of any fish. Live plants may be added during this time.
It is vitally important to ensure the following:

1. pH is adjusted and stable: this can be achieved through the use of a basic pH test kit and pH stabilising products.
2. Ammonia and nitrite are tested after the week and levels are at 0.
3. Filters, heaters etc. are all working effectively.
4. Harmful elements in tap water have been completely removed: using tap water conditioner.

The introduction of fish is a slow process and requires patience. It will generally take between three to four weeks before the aquarium can accommodate a full stock of fish. During this introduction phase it is necessary to test for the following elements:

AMMONIA: which is toxic to all fish.
NITRITE: which is also toxic to all fish.

Your aquarium is essentially a small ecosystem, which must be balanced at all times. This is called the Nitrogen Cycle.

In a brand new aquarium set-up, nitrifying bacteria does not exist. This is why the introduction of fish should be a gradual process. If waste levels in the aquarium rise too rapidly, bacteria cannot grow fast enough to break it down. In this situation, ammonia can reach deadly levels for fish. This in turn can occur when ammonia levels drop and nitro-bacteria cannot act on nitrite fast enough. Nitrite can then reach toxic levels for fish. By testing frequently in a new aquarium for ammonia and nitrite, these levels can be monitored and suitable action taken.

Such action may be taken in the form of:

1. Partial water changes (10% to 30%).
2. Reduce feeding quantities.
3. Adding bacterial supplements.
4. Additional filter media for specific tasks

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It is impossible to avoid these “balance problems’ in a new aquarium. This is known as the “New Tank Syndrome”. It is possible however with some patience, good management and expert advice to see it through with the least number of problems.

When an aquarium’s ecosystem has stabilised, routine maintenance can then begin. It is recommended that a water change of between 20% and 30% be done with a gravel cleaner approximately every one to four weeks. This will depend on the following:

1. Tank size.
2. Filtration system.
3. Type and number of fish.
4. Feeding schedule.

Feed fish only what they will consume within one to three minutes. Excess food will foul the water and may lead to ammonia and/or nitrite.

Filter media should be cleaned out at least every two months, depending on:

1. Filtration system.
2. Type and number of fish.

It is important that all filter media is cleaned out using tank water only- not tap water. Tap water contains harmful elements and can kill off your ‘good’ nitrifying bacteria and result in deadly ammonia and/or nitrite levels. Carbon removes and absorbs chemicals and should be replaced every one to three months. Foam will last between six to twelve months and can be rinsed regularly in tank water. Pre-filter noodles and other porous substrate can be rinsed in tank water as often as required and should be replaced once every six to twelve months. It is recommended that you change only 1/3 of this at a time so as to maintain an abundance of healthy, mature nitrifying bacteria.

Did you know?

A community aquarium refers to the mixing of fish and plants from different geographical areas with an emphasisis on the colour and hardiness of the specimens. An example would be the combination of gouramis, tetras, and rasboras with a selection of hardy plants such as Hygrophila difformis, Hygrophila polysperma, and Vallisneria spiralis. Choosing fish that are peaceful and compatible with each other is important in a community tank.