

The Happy Goldfish

The original Happy Goldfish lives in fast flowing, cool and well oxygenated waters in north western Asia. It spends its day turning over the moving stream bottom for food, and in the spring looks for a mate to spawn with along the grassy fringes of the bank. Of course, today's goldfish has been developed into a multiple of different colour and body forms, which are often the first fish of choice for many aquarium hobbyists. Basically their needs are the same, so let's begin by understanding how to keep the Happy Goldfish in your home aquarium.

Try to Keep your Happy Goldfish in as Large a Bowl or Aquarium as Possible.

Remember the surface area of the bowl or aquarium is where the oxygen enters the water for the fish to breathe, so in a goldfish bowl make sure he doesn't get crowded. In a bowl one or two Happy Goldfish are much nicer than 4 or 5 unhappy ones. Your goldfish should grow well if you give them room.

So how big an aquarium do you need to keep more fish? A good rule of thumb to calculate how many fish you can fit into your well filtered aquarium is 1cm of fish length per 1 cm of aquarium length. *For example:* you could have **10 x 6cm** long Goldfish in a 60 cm aquarium or **6 x 10cm** long or **3x 20cm** Goldfish.

Use a Blended Gravel

A good blended gravel in your bowl or aquarium should contain a good proportion of fine grade pebbles. This ensures that food sinking to the bottom can be grazed over by the Happy Goldfish without fear of it escaping to the depths between purely coarse gravel. We prepare and package a premium blend gravel, which is 50% fine, 25% medium and 25% coarse and makes the ideal choice. Decorative pebbles and coloured stones should be sprinkled over this natural gravel blend.

Preparing your Tap Water

Next we must treat our tap water to remove harmful chlorine and ammonia both of which will kill your goldfish. The best product to do this is Pet City's *AQUA START A*. Add *AQUA START A* at the rate of 5 ml / 20 litres to instantly make your water safe for your fishes and plants. Be careful, basic chlorine neutraliser products will not remove dangerous ammonia.

It is also necessary to replace electrolytes like sodium, magnesium and potassium missing in tap water. Pet City's *AQUA START B* is a product which not only contains these essential aquarium salts but importantly also uses a deioniser to remove heavy metals like Alum (aluminium sulphate) which is added by the Water Board. *AQUA START B* should be added at the rate of 1 teaspoon (5 g) / 10 litres of water. Dissolve before adding to your aquarium. You cannot give your fish a better start than with *AQUA START A* and *AQUA START B*.

Only use *AQUA START A* and *B* in proportion to the volume of water being exchanged. To calculate water volume; Length (cm) x Width (cm) x Height (cm) divided by 1000 = Volume (litres).

The Happy Goldfish prefers a pH which is neutral to slightly alkaline or 7 - 7.6. In an established tank with higher organic levels the pH will be constantly pulled lower. Therefore it becomes necessary to monitor and adjust your **pH Up** weekly.

Provide Good Water Movement and Filtration

Good water movement allows the oxygen entering at the surface to be distributed around the tank. Water can be moved by both by air or motorised filters through filter medium. All good filters provide ample filter media surface area for the colonisation of aerobic (oxygen breathing) denitrifying bacteria which break down fishes waste. The greater the volume of the filter and the greater the flow rate, the larger the population of bacteria which keeps your tank clean. This is biological filtration. All good filters should provide foam or filter wool as mechanical filtration. Chemical filtration is also important and allows direct removal of organic waste. Ideally we recommend a combination of activated carbon and ammonia remover (zeolite). Remember to rinse any loose dust particles out through a net before adding to your filter.

Air Operated Filtration

In bowls or small tank set-ups, a small air pump connected to an airstone is sufficient to move and oxygenate the water well. But if the water also moves through a filter your management will be a lot easier. Of the air operated filters, the **Small World** filters are a good choice, being small and easy to maintain by exchanging the cartridge. Other popular choices are the AquaRockets and simple box filters. Be sure to use a Check Valve (non return valve) so that water cannot flow back into your pump if your power goes off. When using T-pieces to divide your air flow use an inline valve for each device, as air will always flow to the ending of least resistance.

In a simple bowl set-up without any water movement or filtration, be extra careful not to overcrowd or overfeed.

Motorised Filtration

For medium to larger aquariums, there is a variety of motorized power filters, which cater to different preferences and budgets. They provide sufficient water movement as well as filtration.

- External canister filters like the *EHEIM* and *FLUVAL* are the best of all filters. They offer the highest flow rates through the largest volume of media and can be concealed from view. Both these brands have a simple priming system and excellent taps to isolate water in the tubing while the filter is cleaned.
- Hang on styles like the *AQUACLEAR* and *AQUA ONE* are also very good. They possibly provide the best value if your budget does not permit an external canister. To prime, simply fill the filter box with water and turn on. Water is pumped through the filter and gravity flows back into your tank. Sometimes you may need us to cut topglass to suit.
- Internal motorized filters like the *EHEIM*, *TETRA* and *FLUVAL* are popular for smaller tanks or as a secondary filter for extra circulation in a large tank. Internals usually do not interfere with top glass or hoods.

***An important tip** when cleaning filters and water changing; Rinse your filter media in your old aquarium water rather than under the tap as the chlorine in tap water will kill off the precious filter bacteria living in the foam and other media. If you follow these procedures you should never have to completely break your tank down to clean it out.

Biological Filter Supplementation

The best way to get crystal clear water is to pro-actively provide bacteria cultures as biological filter supplements. In our opinion *WASTE CONTROL* and *CYCLE* used in conjunction with one another are the best way to enhance your filtration and stay ahead of the game.

People using these products simply do not encounter the same problems as people who take a minimalist approach (don't use a filter supplement) and end up constantly reacting to problems. These bacteria cultures help convert all organic wastes (fish poo, plant detritus and uneaten food) to ammonia then further to nitrite and finally to nitrate.

To establish your tanks bacteria cultures can take several weeks but is accelerated greatly by adding supplements. You still need to be careful not to overstock your new aquarium during this run in period.

Water Change Regularly

This cannot be stressed strongly enough. Nitrate is the residual by product of any filtration process. Although nitrate is relatively harmless, the levels will accumulate and become dangerous if regular partial water changes are not performed to dilute nitrates. **pH** is also pulled dangerously lower by organic waste accumulation. Therefore, no matter how good your filtration is, you still must water change regularly.

Bowls

In a bowl the water and gravel should be stirred up at least weekly and most of the dirty water emptied out. Your fish should remain in the bowl while you do this. Do not fall into the trap of rinsing the entire bowl and gravel with tap water as the chlorine will kill all the good bacteria living in the system.

Aquariums

In medium to large aquariums a gravel siphon or vacuum cleaner should be used to help remove waste products that have accumulated in the gravel. Remember a fine blended gravel will minimize this. The dirtiest water is removed and new treated and conditioned water (*AquaStart A and B*) is returned to the aquarium. Even when your tank appears clean, dangerous nitrates which are the end by-product of all organic breakdown continue to build up. *We recommend a 1/3 to 1/2 water change fortnightly to keep pH close to neutral and nitrates low.*

We recommend that you always test pH and nitrate weekly to ensure your water change maintenance is sufficient to maintain this balance. pH can be maintained using **PH UP**, but the only easy way to remove nitrate is by water changing.

Choosing Your Happy Goldfish and Taking them Home

Try to have your new aquarium running for a couple of days before first introducing your Happy Goldfish. Choose the Happiest, healthiest Goldfish. We are happy to select any fish you like.

Look for fish that are active and are deporting well with well balanced body shape and straight fin rays. There are many varieties to choose from. Comets are very active and are popular in ponds but are also happy in aquariums with busy friends. Fantails have an attractive double tail and move more slowly. The fancy Orandas have caps on the top of their heads and make a lovely display. Black Moors are also very popular and should have a fantail and large eyes. Many other varieties make excellent displays also. For those after the best show quality fish, try to purchase the largest fish you can afford.

When transporting fish home, open the bags, roll the top down a little and introduce a little of your tank water to the bag. Allow them to float in the mixed water for a few minutes and then introduce a bit more tank water to the bag. After doing this a couple of times invert the bag and allow your Happy Goldfish to swim into the tank. Unfortunately even Happy Goldfish get very lethargic in hot weather and not very hungry, so try to keep them cool and feed less.

Live Plants or Plastic ?

Plants will grow in your Happy Goldfish tank if there is sufficient lighting and a little plant food. Goldfish are inclined to eat plants if they do not get enough vegetable matter in their diet. Remember the Happy Goldfish enjoys the chance to nibble on plants. If plants grow well for you then a natural balance can be maintained. If your plants begin to die off for any reason, quickly remove them as they will pollute your tank the same as uneaten food and excess wastes. If you get tired of constantly replacing your plants then plastic plants are for you. There is a wide range of very realistic plastic plants available. They can be cleaned of algae by soaking in bleach for an hour before being rinsed thoroughly and returned clean to your aquarium.

Lighting

If you want to enjoy viewing your Happy Goldfish at night time then you will need to light them. Also to grow plants, lighting is essential because plants will not grow without sufficient light. To grow your plants well, fluorescent lighting at about 2 watts per 5 litres of water is a good guide. Ideally 8-10 hours of light per day is sufficient for well planted tanks and less if you do not have live plants.

We find it best to illuminate your tank from afternoon until bed time when people can more easily enjoy their tanks. Lighting left on all day will undoubtedly cause excessive algae problems. For best results with plants we recommend high intensity full spectrum white lighting. *Arcadia* tubes are the best, but should be used in conjunction with complimentary budget alternatives like *Aquastars*, *Aquaclles* or *Power Glos*. If you do not intend to grow plants then *Aqua Glo* tubes are cheapest. We sell a number of lighting fixtures from Singles to Doubles and Remote Ballast Fluorescents. All light fixtures are sold without fluoro tubes.

Feed Small Amounts Often

Feed your Happy Goldfish at least twice a day with small amounts of food. Be careful not to overfeed though. By overfeeding we mean do not feed them too much at any single feed. Uneaten food is 10 times worse for the aquarium than fish poo, so make sure they eat all of what you feed them quickly. Remember a lot of the food will sit around the aquarium or bowl for a while where the fish will continue to pick around for the next hour or so. If you feed small amounts like this your Happy Goldfish will eat more, metabolize it better and be more active as well as producing less waste. Use only good quality prepared foods like flakes or pellets from the *Tetra*, *Nutra-Fin Max* or *Wardleys* ranges. Try to alternate between these prepared foods to add variety and daily feed frozen and live foods, which are always available at *Pet City*. Our staff can help advise you on food selection.

The Best Advice

There are lots of ways of achieving good results in your aquarium, but the principles are always the same. The biological balances are the key and we know that by using the best blend of equipment and products along with the right advice and service from our *Pet City* staff you can have a beautiful and problem free aquarium.