Fish Pond Maintenance and repair
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An exquisite fishpond would be a perfect addition to any backyard or hotel. It’s important to take time out of our busy schedules and have a place where we can go to just think and relax. Sitting down by a fishpond and observing the fish carelessly swimming around is peaceful and tranquil.

Fish ponds are a perfect way to show off your aesthetic side. You can creatively construct a man made fish pond or increase the magnificence of a natural fish pond in your own backyard. Some things that will help add to the attractiveness of your pond are waterfalls, statues, plants and fish.

Once you have invested your hard earned cash and time into a fishpond you must learn how to maintain it and care for it, otherwise your pond will slowly decay and turn into a huge mess. It’s not difficult to maintain and care for your fish pond, on the contrary, once you know what you are doing it’s actually incredibly easy. Some ways that you can make sure your pond is both efficient and healthy are to occasionally test your water, watch out for algae build up, and continuously pump water into your pond.

**How to make your own fishpond**

It’s important to have a vision of what your fishpond will look like before starting, so jot down what your exact goals and aspirations for this project are. How much money do you want to spend? What kind of appearance are you going for? How much space do you want to use? These are crucial questions you must ask yourself before getting started.
The minimum size for a fishpond depends on the climate. If you live in warm place then your pond can be relatively small. However, if it gets extremely cold in your area, then your pond should be deep enough to avoid completely freezing solid.

Another factor which should determine the size of your fishpond is the amount of fish you are aiming to keep in the pond. The more fish you would like to have, the bigger your pond will have to be. Finally it’s essential to know the type of fish you plan on placing in the pond. Is it going to be home to Crayfish or Koi? Koi fish only need an area which is 4-5 feet deep and has 1000 gallons of water in it. Meanwhile, water gardens only need to be about 2 feet deep in warm climate and at least 16 inches in colder climates.

Larger ponds have more advantages than smaller ponds. Not only are they easier to sustain but they are also more stable. Since a larger pond has more water volume than a smaller pond it will take longer to heat up and change temperature. Hazardous materials that reach the pool are also more diluted and do less harm. Furthermore, a larger pond usually contains more fish, therefore when a predator comes along the fish have safety in numbers, and it’s easier for them to hide and stay safe. Lastly, larger ponds are safer for fish to stay in during cold weather, especially during those icy cold winters we get up in the Northern states.

Many people make a mistake on where they place their ponds in the back yard. Make sure that your pond is not located where excess runoff rain will get into it, carrying in chemicals and other material and debris into your pond. You also don’t want your pond too close to any tress. Fallen leaves will need to be removed daily from your pond, so avoid cleaning your pond everyday by placing it farther from trees.

Choosing Materials

Now that you have determined the location of your pond and the size of the pond you want, it’s time to pick the building materials that you would like to use. Each material has its own advantages and disadvantages.

If you are on a tight budget, then pond liners should be used to prevent water from seeping into the ground. Liners are easy to use but don’t last that long. Make sure to be extra careful when placing rocks and other objects over the liners, otherwise they may puncture. More expensive alternative materials you could use instead of pond liners is fiberglass and polyethylene, as these materials tend to have a much longer life than liners.

An additional material which can be used to build a pond is concrete. Unlike other options, concrete ponds should be no larger than five meters in diameter. Finally, another option is bricks. Using both cement and bricks looks more appealing to the eye, however they both eventually crack and leak.
Maintain water circulation in your fishpond

If you enjoy hearing the sound of flowing and falling water then perhaps you should add a waterfall feature to your pond. Waterfalls are not only elegant and nice to look at, but they will also improve the health and cleanliness of your fishpond. A waterfall can provide oxygen to your pond which is beneficial to many fish. The circulation of water also thwarts insects and mosquitoes from laying eggs in your pond.

Additionally, a water pump will also help to circulate water in your fishpond. The typical garden fishpond should have a water pump turned on every few hours, but it really depends on the size of your pond, as larger ponds will need to have more water flowing in than smaller ponds. Furthermore, besides the volume of water coming in, it’s important to have the pump placed at an optimum height. Pumps will lose less water and pump less rapidly as the height of where they are located increases. It’s important to get a pump that provides enough circulation but, at the same time, don’t overdo it. Buy too powerful a pump and you will find yourself having to pay a hefty electricity fee.

Water pumps should be run in intervals so that your pond doesn’t develop a repulsive aroma of nauseous gases such as ammonia, methane and hydrogen sulphide (rotten fish egg). If you don’t pump enough fresh water into your pond, then anaerobic bacteria can thrive. These harmful, polluting bacteria will continue to duplicate as the amount of oxygen in the water decreases. To prevent these bacteria from ruining your pond, you should pump water in every morning because oxygen levels are at their lowest point during this part of the day. Water plants and algae usually only produce oxygen during the day while the sun is out, so a regular infusion of water is needed to prevent anaerobic bacteria from multiplying. If your pond has a copious amount of fish you may have to run your water pump at night too.

Another of the best ways to prevent these nitrifying bacteria from flourishing is to leave your water pump running continuously throughout the day, as this way the amount of nitrifying bacteria will remain constant and will exchange ammonia into nitrates. The only way nitrifying bacteria remains constant is if the oxygen levels remain constant. If your pump is suddenly turned off or if it breaks down, nitrate levels will drop and anaerobic bacteria will increase and many fish are likely to die. Nitrate bacteria take weeks to regenerate so you need to keep that water pumping, especially if you have a whole bunch of fish.

Supplementary items you can buy to make your fish pond unique and noticeable

Fishponds are gaining popularity throughout the world. How can you make your fishpond standout from others? Besides installing a waterfall, many fishpond enthusiasts like to make their ponds look more natural so they add stones and rocks. If done correctly these stones usually add a touch of mystique to a fishpond. Some
fishpond owners also like to add statues and light to their ponds. Perhaps the best way to make your fishpond distinctive is by adding an array of both fish and plants to your pond.

**Important Fish information**

Some fish are not compatible with other fish and other fish can only survive in specific climates, so don’t go wasting your money buying a warm weather fish to put into your cold pond or else buying a fish that will kill all your other fish. You should do some research and learn about the fish you plan on putting into your pond. Please note that it’s important not to overfeed and to over populate your pond either. Take your time deciding what kind of fish you want in your pond because once you place a few fish into a large pond and they start breeding, it can be nearly impossible to take them all out. This is especially true with goldfish since they breed so rapidly. Choosing your pond fish should be a very enjoyable experience however, as there are so many varieties to choose from.

**How many fish should I put into my pond?**

Every pond is different; none of them are alike. There is no magic number of fish that any pond should have because there are so many factors you must account for. For instance, you must keep in mind the climate of your area, how big your pond is, the amount of filters, pumps and the quality of your water level. If you have a large pond with good clean water constantly being pumped in, then you could have 1 fish per 70 cm. This is a solid rule to go by if you are living in a warm climate, however if you are living somewhere cooler you could have 2 fish per 70 cm.

**How much food does my fish need per day?**

If at all possible, fishpond owners should try to keep only as many fish as the natural ecosystem of your pond can handle because if you feed your fish with fish food, additional phosphorus enters the pond. This phosphorus feeds the algae. If you feel obligated to feed your fish it should only be a small amount and a maximum of two times a day. Anymore feeding and you are probably doing more harm than good. Feeding your fish too much will also pollute the water which will make your fish unhealthier.

To summarize then, decorative fishponds have been around for centuries. During that time, it has been proven that some species of fish are more tolerable and endurable to living in ponds than other fish. In order to be able to live in ponds all year round a fish must be able to bear through weather changes and be able to avoid predators. Choose your fish species wisely, don’t go blindly selecting any beautiful fish you see at the pet store. Be wary that not many fish can survive a harsh winter outside, so it might be better to place them temporarily in a fish tank kept indoors until the winter months have passed.
The two most popular fish kept in ponds are Goldfish and Koi

Goldfish

Goldfish were produced in China thousands of years ago through selective breeding of mutated colorful fish and soon thereafter became the first domesticated fish. These fish normally have a lifespan of 6-8 years.

They are well-liked pond fish for many reasons; first of all because they can be kept with other water plants and are more adaptable to smaller ponds than other fish species. Goldfish are usually an inexpensive alternative to Koi, and their beautiful color catches the attention of the eye. In addition, goldfish are very hardy and can live in a pond that is only 2 feet deep, however if you want your goldfish to survive in colder climate you should place them in ponds that are at least 16 inches deeper than the frozen ice above it. These fish can survive in ice water along as there is sufficient oxygen available for them. Certain types of goldfish, including Bristol Shubunkins, Comet, London, and a select few fantail goldfish can live in a pond throughout the year, but on the other hand oranda, moor, lionhead and veil tail fish can only be kept in the fishpond in summer. These fish simply can’t survive in cold temperature water. However, if you live in a warm climate, you can keep these fish in your pond all year round.

Which goldfish can be intermingled? Which ones don’t get along? There are three different groups of goldfish and none of them really get along. The 3 groups are pond comets, fancy goldfish such as Fantails, Orandas and very fancy goldfish which include Bubble Eyed goldfish. To clarify, group 1 is pond comet, group 2 is fancy goldfish and group 3 is very fancy gold fish.

Group 1 (Pond comet)
Group 2 *(fancy fish)* Red Oranda

Group 3 *(very fancy fish)* Red and White Ranchu

Group 1 fish generally are faster than the other 2 groups and will usually eat most of the food made available. If group 2 fish are placed together with group 3 fish they will eat most of the food because they are faster than group 3 fish. Very Fancy goldfish (group 3 fish) are very slow swimmers that will have a hard time getting any food. As you can see these three groups of goldfish should not be living together in a pond or a tank.

Pond Comets and Shunbunkins are two gold fish that make great pond fish. They are both fast moving and can adapt to temperature changes. Another two amazing pond fish are Fantails and Orandas. Orandas and Fantails aren’t as aggressive as Koi and Pond Comets. These two fish should never be mixed with the popular Pond Comets and Koi, however if you want, you can mix Koi and mixed comets.
Surprisingly, not all these goldfish will do well in ponds. Fancy goldfish such as Bubble Eyes, Lionheads and Orandas make horrible pond fish because they are bad swimmers and are not able to adapt to outdoor temperatures that constantly fluctuate.

**Koi fish**

A popular pond fish that many people prefer over goldfish are Koi fish. Some cultures believe that this fish brings its owner good luck. Koi fish originated in China hundreds of years ago, eventually the fish gained popularity after being transferred to Japan and Korea. Similarly to goldfish, koi are tremendously hardy and can live for years. The most popular types of Koi fish are Japanese Koi, Nishikigoi koi, Butterfly koi and Tategoi Koi.

There are a variety of Koi fish which are different colors, shapes and sizes. For example there is the 4 inch solid black koi, the 3 inch solid gold ogon koi, the 4 inch platinum ogon koi and many other assorted pond koi. Koi fish are huge fish that are not good shallow pond fish, they shouldn't be put into ponds which are less than 1000 gallons, and the pond should be greater than 3 feet in depth. Some plant lovers tend to avoid purchasing Koi. If you want to have some lovely decorative plants in your fishpond then you should definitely avoid purchasing Koi fish. They will help themselves to these plants until they are scattered all over. If you want some appealing plants in your pond which the koi won’t eat, your best bet would be to purchase unappetizing flora plants.
Please be aware that if you choose to buy a ghost koi they will grow big and strong extremely fast, once this happens they become voracious feeders, and can prevent your other pond fish from getting enough food. Another important fact you should know is that butterfly koi (long finned koi) are less hardy than other koi fish and have a propensity to suffer from fin nipping from other fish which makes it harder for them to swim and therefore they get less food and die.

Koi fish pond

Other quintessential pond fish
Mosquito fish (Gambusia)

True to its name this fish generally consumes a lot of mosquito larvae during its lifetime. This guppy-like fish is extremely small and resilient. Gambusia can survive in even the shallowest and dirtiest ponds. Many people avoid buying them because they aren’t very beautiful and look very dull. However, if you have a shallow pond with a mosquito problem then this may be the perfect fish for you.

Golden Orfe

This schooling fish grows to about 18 inches and has a radiant orange color. This fish is lighting fast and can be seen darting around in large groups with other golden orfe. These fish are not as hardy as koi and goldfish. If you would like to own a golden orfe you would have to continuously monitor your water quality and try to keep the water
temperature as stable as possible. Don’t go to the store and buy only one, this fish must have a school of 4 or 5 golden orfes or won’t survive for over a week.

Cichlids

If you live in climate that is warm all year round then you would be able to purchase a strikingly visually friendly cichlid. These fish can’t live in a cold climates however they are extremely hardy in warmer climates. These fish come in numerous colors and sizes, so you’ll be sure to find one that you love.

You should never ever put these fish into a pond with comets, koi or shunbukins because cichlid fish are extremely hostile and aggressive towards other fish. If you are in love with this fish and must have it even though you live in a cold climate region, then you can either heat up your pond in the winter months or bring your cichlids into a indoor fish tank until it gets warmer outside.
Plecostomus

Catfish or Plecostomus are often only added to ponds to prevent algae buildup. These fish can grow to be up to 24 inches in length. These fish are quite unpleasant to look at and need big pond to live in. Catfish usually live in tropical climate regions and will not survive a cold winter.

White Cloud Minnows

White Clouds Minnows are swift moving, enduring white fish that can survive in cold climates all year round. However, these fish don’t survive as well in warmer climates and aren’t compatible with every type of fish, particularly koi. The koi usually try to eat the minnow fish. Another problem with minnow is that the flathead minnow (rosy red...
minnow) can turn your pond pink making it hard to see what’s going on in your pond. In addition, these rosy red minnow frequently carry detrimental bacteria with them; these bacteria can cause a lot of harm to your ponds ecosystem and lead to the death of many fish.

How to keep predators from eating all of your fish

**Raccoon**

Once your fish pond has been established, there will plenty of predators stopping over at your pond. Birds are a common predator of fish. The blue heron is a common predator of fish in United States. Raccoons are yet another common enemy of fish pond owners especially if you own a shallow fish pond. These nocturnal animals will try to steal your fish while you are sleeping.

**Blue Heron**

Owls are not fish pond predator which feed mainly on frogs and fish. To prevent birds from feasting on your fish you should go to a store and buy a fake bird and place it in your pond. Most birds are territorial and won’t want to cause any problems with another bird. Other fish pond enthusiasts will also buy traps, scarecrows and leaf netting. Leaf netting serves two important purposes; it can prevent leaves from getting
into your pond and stop predators from eating your fish. On the other hand, the scarecrow is a motion censored sprinkler that will spray water onto would be predators. The abrupt noise sounds and water usually scares away birds, raccoons and cats, therefore teaching them to steer clear of the area in the future.

**Scarecrow**

Fish face additional predator risks during the winter. During this time the foliage of plants are gone and make it easier for predators to see and eat your fish. Moreover, the winter months are so cold that you probably won’t be able to use your frozen scarecrow device.

None of these preventative methods are bullet proof. The traps you set up may attract stray cats and skunks. Birds such as the heron may get used to the fake birds you set up and ignore them. Owls and Kingfishers are so fast and swoop in so swiftly that your scarecrow device can only make a futile attempt to stop it from getting your fish. Your fish pond will attract various animals such as bees, butterfly, frogs, raccoons and birds. Some of these animals you may like more than others. Mother nature is not selective so don’t get discouraged or stop caring for your fish pond because of annoying predators, dealing with them comes with the responsibility of becoming a fish pond owner.

**Why do fish sometimes develop diseases and die?**

After your brand new fish are placed into their new homes they may get sick and die from their own bodily extractions. Fish give off urine which becomes ammonia as it slowly breaks down. Ammonia is very poisonous and hazardous to fish. Bacteria in your pond will turn the ammonia into nitrite which is another hazardous substance that is harmful to your fish. Other forms of bacteria will then convert the nitrite to nitrate which isn’t as toxic to fish but too much of it in the water will also cause your fish to become diseased and die. Fish owners need algae and other plants in there pond to turn the nitrate into oxygen and nitrogen. This whole process takes time. The bacteria that turn the ammonia into nitrite needs at least six to eight weeks to form a population size big enough to covert enough ammonia in an average sized pond.
Therefore, to keep fish from killing themselves, fish pond owners should start off by only placing a few fish into their brand new pond. If you are impatient you can buy some nitrifying bacteria starter kits at stores. Also remember to remove any chlorine from your water if you plan filling your pond from your hose. This can be done by placing chlorine neutralizing substances which you can also buy at any fish store.

**Maintaining your fish pond water quality**

Perhaps the most important thing to take care of in your fish pond is the water because if the water quality in your pond is bad it will set off a chain reaction, which could cause your plants and fish to die. The quality of your water will be the main reason your fish sink or swim. Water quality is greatly affected by every aspect of your pond, from its location, amount of sunlight it gets, depth, construction material, maintenance and filters.

No pond is the same; your neighbor’s pond will definitely be different than yours. Koi fish pond water will be a lot different from optimum cichlid and mosquito fish pond water quality levels. For example, koi will be at their best when they are in clear water lacking water plants whereas other fish can only survive with plants and murky water.

Some important factors that greatly affect fish pond water quality levels are sunlight, phosphorus levels and aeration. Sunlight, phosphorus and algae are all somewhat correlated to one another. Sunlight and phosphorus are limiting agents in algae and plants. If your pond receives very little sunlight then the amount of algae that will grow will also be very little. If your pond gets too much sunlight then phosphorus can be used to keep your algae levels under control.

Your fish need a substantial amount of oxygen in order to survive. They can get it from plants or from a water pump. Aeration will also impede the growth of many bacteria, including those that will cause your pond to develop horrible aromas. Depending on the amount of fish you have in your pond, you can either have a pump that runs continuously throughout the day or in hourly intervals. Plants can’t produce any oxygen at night because there is no sunlight, so they will need extra aeration in the morning.

**Water filters**

In order to successfully maintain your fish pond you should have 3 main filters. Every pond should have an ultraviolet, mechanical and biological water filter. Ultra violet filters are especially important for pond owners living in tropical climates.

A mechanical filter helps pond owners get rid of suspended material from the water and helps clear out decaying organic material from your pond. Biological filters are necessary for owners who own more than a handful of fish; they allow nitrifying bacteria to attach to it. These filters are simply a material that enables bacteria to attach
to it, they are also difficult to clog up. Ultraviolet filters will help fix your microalgae problems so that you can once again see your fish. UV filters are long term solution to preventing algae buildup. They also save you from the hassle of having to continually put in algae treatment agents into your pond.

Fish pond owners should clean their water filters once a week. However, most people have busy schedules and this chore can become quite pestering. The problem is if you don’t regularly clean your filter the organic material stuck to it will eventually break down and get released back into the water. Once it is back in the water the algae will absorb it. If you don’t clean your filter for months the filter can even get so clogged that it stops working. To prevent both these situations from occurring you should take a few minutes every once in a while to clean your filter. You should clean your filter with pond water and not tap water. If you must clean it with a tap water you should add some chlorine neutralizing material into the pond after cleaning it.

Regulate your fish pond algae

Algae can have a positive effect on your pond’s water quality. However, if you don’t control your algae levels they can have a negative effect on your water quality too. When in the sun, the algae will consume carbon dioxide and converts it into oxygen for your fish. The problem is at nighttime if you have too much algae in your pond water it will draw out a bunch of oxygen leaving your fish with very little oxygen in the morning and suffocating life in the pond. The algae will also lead to soupy green colored water in your pond. What caused this all to happen? Algae levels are associated with sunlight and phosphorus. Most ponds that are in the shade normally don’t get bad algae build up but instead it’s the ponds in the sunlight that get really bad algae buildup.

Balanced algae levels can be achieved by using phosphorus as a limiting agent, reducing the amount of sunlight your pond gets by using a translucent shade or simply by scooping out some of the algae. In addition, some pond owners also take out some fish which will reduce the nutrient input coming into the pond.

To find out if your pond has low oxygen levels you can watch the fish to see if they are lethargic and regularly gulping for air at the surface of your pond. If they are, then most likely you have an algae problem. You can also increase oxygen levels by adding a water fall, water fountain and bubbler.

Control your Nitrogen levels

Nitrogen is also important in algae growth. However, nitrogen is always bountiful in most fish ponds because of the presence of cyan bacteria. Nitrogen is critical in fish ponds that contain more than 20 fish. Hazardous forms of nitrogen are turned into less harmful nitrates by nitrifying bacteria. If you don’t have enough of these nitrifying
bacteria then your fish will die from disease. To add more of these bacteria into your pond you should install biologic filters so that these bacteria can attach to them.

**How do you know if the water quality in your pond is good?**

Water testing your pond will help fish pond owners maintain a beautiful pond and keep your fish healthy. If the water quality in your pond is terrible your fish will eventually become stressed, diseased and die.

Pond owners should frequently water test the pH, chlorine, ammonia, nitrate, and dissolved oxygen levels of their pond. It’s easier to catch and fix a problem early before it gets out of hand. Water quality levels can turn for the worst fast. All it takes is a few rainy days, a few plants dying, a filtering malfunction or algae build up problem and your pond can become an awful mess.

Before placing a single fish or plant into your pond you should test your pond water. Test kits can be bought through the internet or by going to your local pet shop. If the weather gets bad in your area with heavy rain or if your pond has turned into ice, then you should test your pond. Even if the weather has been great you should still test your pond every 2 weeks. For precautionary measures, you should also test your pond’s water level after installing a new filter and after getting your pond repaired.

As previously mentioned, high ammonia levels are extremely harmful to fish and high nitrate levels would mean your pond has been or is on verge of accumulating too much algae. Chlorine levels should be tested if you add water into your pond. It should not be in your pond water at all. Any amount of chlorine is deadly to most fish. The pH level of your pond should be between 7.4 and 7.8. A pH level of 8.4 is also safe, however if your pH is 7.0 or lower then there something wrong with your pond water.

Don’t just test your fish pond and throw away the test kit paper results, it’s important to graph and put your test results on either paper or on your computer, this way you can observe trends and easily see when things are going badly.

**How often should I vacuum my pond?**

Over time, undesirable wastes products will accumulate in your pond. The best way to get rid of this rubbish is to vacuum your pond regularly. Pond owners should never remove more than twenty five percent of their pond water at a time. Once you replace the water you have taken out of your pond you should wait a few days before placing new tap water back into the pond. This will give the chlorine in the water a chance to gas off into the air. If you are too lazy to regularly vacuum your pond once a month then you should do a major cleaning job at least once or twice a year and you’ll have to empty out the entire pond to do this.
Nothing will make a fish pond owner cringe more than waking up to find a pond that has loss significant water. The first thing you must do in this situation is find out the cause of leak. Possible culprits include a leaking waterfall, leaking pipes, leaking liners and splashing.

**Waterfall leak**

![Waterfall leak](image)

The most common cause of water loss in fish ponds are water fall leaks and splashes. Sometimes this is caused by simple rock shift. Over a short period of time your pond will lose a considerable of water because of this problem. You might have to adjust the water flow to fix this problem or put the rocks back firmly in a place where they won’t cause splashing.

**Liner Leak**
Another type of leak that will be more annoying to fix are cement pond leaks and liner leaks. The method to find this type of leak is quite interesting; it's called the milk method. What you do is, drop a small amount of whole milk from an eye dropper and turn off your pumps, now drop 2 more drops around the perimeter. Slowly but surely the milk will be drawn to hole in the liner or crack in the cement. Small holes can also be found using a magnifying glass. The worst part of a liner hole as depicted above is that you will have to remove all of your plants, fish and water to fix the problem. The hole can then be repaired with liner tape, using a patch or by replacing the whole entire liner.

**Cement pond leak**
Similarly to liner leaks you can use a magnifying glass and milk method to find out where the leak is. The cement cracks may be extremely tiny. To repair the pond you will need to empty out all the water from the pond and take out all your fish.

To repair your leaks Pond Pro 2000 is a liquid version of EPDM very similar to EPDM pond liners sold in pond supply stores. It has over a 20 year history of success. It works extremely well on all non-porous concrete fountains as well as EPDM fishponds liners. Reflecting pools are another good application for EPDM. These are demanding applications where the unique properties of EPDM have a distinct advantage over other products. The success of Pond Pro 2000 is through combining ethylene and propylene with a diene monomer. Pond Pro 2000 is safe for fish and plant life as well as chlorinated water. This polymer (when crosslinked) is an excellent moisture barrier, resistant to oxidation and UV degradation but its most important property is its ability
to tolerate both low as well as high temperatures (from minus 62 to plus 350 degrees Fahrenheit). General EPDM rubber is used exclusively for radiator hoses, freezer gaskets and low temperature seals, steam hoses, and rubber roofing membranes. It is also blended with other rubbers to improve their properties. A multitude of products are now better and last longer because of the contribution made by EPDM rubber.

**Leaking pipes**

If it isn’t a waterfall leak or liner leak then the most likely problem is the pipe work. You will have to walk around your backyard and look for damp areas in order to find the leak. Afterwards, you will need to wrap a small piece of rubber around the leak area, and then place a hose clamp around the joint and tighten the clamp. Put some water resistant fiberglass tape around the pipe and you are done.

**Another cause for missing water**

You might not need to repair anything. Many times fish pond owners will overreact and assume that there pond is leaking when in reality, the water loss is probably due to evaporation.

**Plant life**

Most fish pond owners like to place water plants into their ponds in order to make their ponds look more natural and serene. Picking out the plants and creating your own little ecosystem is one of the best parts of being a fish pond owner. Plants will also help filter your pond water, they are a good source of oxygen and helps shelter fish away from
predators. Plant also do good job of hiding the cords and hoses you need to maintain a beautiful pond.

What water plants should I buy? Well, it really depends on the look you are trying to create. For instance, modern ponds and koi ponds have a minimal amount plants in them. These types of ponds usually have potted plants surrounding the perimeter of the pond and some tall flowering plants in the pond.

Some common pond plants are:

**Water Lilly**

![Water Lily Image]

**Iris**
Papyrus

Other types of Pond Plants

Oxygenators

These plants keep your pond healthy by absorbing carbon dioxide.
Marginals

Marginals are planted in shelves along shallow water ponds. This group includes arrowhead and marsh marigold plants.

Floaters

Floaters are great at providing shade for your pond. They include fairy moss and water soldier plants.

How much space should plants occupy in your pond?

If you live in a warmer climate where it is sunny all the time then plants would help you shade some of your pond and hence reduce algae levels. Plants will also absorb toxins such as nitrates and heavy metals which otherwise would build up and make the water quality unhealthy for your fish. However, you don’t want to have too many plants in your pond because they can eventually clog up your pond, which would leave your fish with little wiggle room to swim around. Follow this rule of thumb and your fish pond should have the perfect amount of plants. For every square meter in your pond you can have 1 bog plant, 1 water lily or 2 bunches of oxygenating plants.

Water plants will keep algae levels low

The most plentiful plant in your pond is algae. Green algae is important for your pond and will provide oxygen for your plants but as previously mentioned its growth needs to be regulated or it will cause a major problems for your pond. Floating plants will consume the nutrients that otherwise would be absorbed by algae. Some pond experts believe that pond owners should have two thirds of their pond covered in plants so that your algae levels won’t get out of control.

How do I take care of my pond plants?

Pond plants aren’t that different from regular plants, they still need to be pruned, they need nutrients, and they need sunlight. Some plants need less nutrients and sunlight than other plants.

Should I fertilize my pond plants?

Please don’t fertilize your pond plants. The fish will end up fertilizing the plants with their wastes which the plants will absorb. Run off fertilizer will probably end up in your pond after a few rainy days. It’s better to be safe than sorry. If your pond gets fertilizer in it, there won’t be anything you can really do to save your fish from the carnage that will ensue.

Water circulation
The majority of plants enjoy circulated water just as much as the fish do. However, some plants such as water lilies can't live in ponds with splashing water and rapid water movement. So you would have to choose between a waterfall and water lily.