

A WaterZoo guide to...

# Pond maintenance

As seasons change your pond needs different types & frequency of maintenance. Regular maintenance will help your fish & plants stay healthy and ensure you get the most out of your pond.

## Spring

As the days get longer the temperature start to rise, spring is the time when the pond starts to come to life. Your fish become more active & start to look for food & the plants begin to grow again. While the water temperature is below 10°C (50°F) it is still advisable to feed your fish an easily digestible wheatgerm food. While your fish may be hungry it is important to feed them sparingly as filtration bacteria that breakdown poisonous fish waste will still not be present in high numbers after the cold of winter. These numbers can be boosted by adding Interpet Bio Start or one of the other bacterial products.

Late spring is the ideal time to replant your pond. We will have a good range of healthy young plants. This will give the plants the maximum time for growth before the onset of the colder months.

It is particularly important to test the water for pH, ammonia, nitrite & nitrate throughout spring. The increase in the fish's metabolism, coupled with more frequent feeding, can cause water quality problems. On top of this the filter is not yet working efficiently and there may be decomposing vegetation from plants that died in the autumn. If you detect a water quality problem, stop feeding the fish for a few days and carry out a water change of no more than 25%. Remember to add a water conditioner when using tap water, this will neutralise chloramines that could otherwise harm your fish.

Over the winter pumps, filters & Ultraviolet clarifiers may have been switched off or neglected. Now is the time to check these are in full working order. Clean & check your pump, not forgetting the impeller. Wash out the sponges in the filter & replace if over two years old. If your pond is fitted with a UV check it for signs of frost damage, clean the quartz sleeve, replace the UV lamp and sealing rings. The lamps only have an effective life of between six & twelve months. Replacing it now will prevent early algae growth caused by sunnier days. If you have been using a pond heater remove this, once there is no chance of a hard frost.

During the spring it is important to keep a close eye on your pond fish for disease. At this time of year the fish's immune system is at its lowest level leaving it open to attack by pathogens. It can be worthwhile adding a broad-spectrum treatment in early spring that protects them until the immune system is fully functioning again. Myxazin P manufactured by Waterlife research is an effective broad-spectrum treatment.

## Summer

With long days of summer, plants are flowering and the fish should be feeding vigorously. As the water is now much warmer you can switch from a wheatgerm food to a staple diet. Feed your fish enough food so that it is eaten within a few minutes two or three times a day. You can also give your fish a treat by feeding them frozen Bloodworm or Daphnia occasionally.

It is still worth testing the water to check that the filter is coping with the increased loading. If there is persistent ammonia or nitrite problems it could mean your pond is overstocked or your filtration system is not powerful enough.

Filters & pumps will need frequent cleaning to ensure a constant water flow through them. These should be left running twenty-four hours a day. Changing 25% of the water once a month during the summer months can reduce high levels of nitrate & phosphate, two of the main causes of algae problems. As the water temperature rises the amount of dissolved oxygen available to your fish decreases. Keep a close eye on them in very hot or stormy weather, if

they start to gasp at the surface this indicates a lack of oxygen. This could be caused by a problem with your water pump, although a more likely cause is an exceptionally hot day. During hot weather a pond air pump or surface skimmer can quickly increase oxygen levels and can be a worthwhile investment if your pond is well stocked.

If you wish to empty your pond and clean it out early summer is an ideal time to do it. The fish are active and healthy, and the plants will respond well to being pruned. Alternately, you can hire our pond vac, which removes sediment without the need for a total clean out.

### **Autumn**

As the days start to shorten the fish will become less active, make sure they eat all the food as any left uneaten can decompose and cause water quality problems. Once the water temperature drops below 10°C (50°F) switch to a wheatgerm food this is easily digested by the fish in cooler weather. You should also keep an eye out for any disease problems and treat promptly. As the water temperature gets lower the effectiveness of even the best medication is reduced.

As the plants start to die back now is a good time to cut back any aquatic & marginal plants. Take care not to do this too early as many plants continue to grow right up until the first frost. Some aquatic plants like *Elodea* will continue to grow very slowly right through winter. It is best to cut these back and re-pot them to give them the best chances of survival through the coming winter. Keep the pond as free as possible of falling leaves from surrounding trees as these can soon build up in the bottom of the pond and cause problems. You may wish to consider installing a pond net to catch the leaves, as well as protecting your increasingly sluggish fish from predators.

Before the onset of the really cold weather it is worthwhile changing 25% off the water, remove as much of the sediment that has accumulated over the summer as is practical. If this is not removed fish may lie in this over winter causing health problems that may be difficult to rectify in cold weather. Pond pumps should be checked for wear & cleaned along with your filtration system. If your pond has a UV clarifier this should be drained and stored in a frost free area to prevent damage caused by the expansion of freezing water.

### **Winter**

As the days become short and the nights get cold you will notice the life in your pond becomes very sluggish. Check the water temperature with a pond thermometer, although the fish will be sluggish they will take small amounts of wheatgerm food on sunny days if the water temperature is above 5°C (40°F). Below this temperature the fish are unlikely to feed as they enter a state similar to hibernation. If you choose to switch off your pump this should be removed from the pond cleaned, dried & stored in a dry frost free area. If you have decided to leave the pump in the pond it should be left running, although fountains & waterfalls should not be used. Leaving them running will expose the slightly warmer pond water to cold air and chill the water further. The pump should be raised at least 15cm from the bottom of the pond this will trap a layer of slightly warmer water on the bottom where the fish will be living. In icy weather do not allow the entire pool surface to freeze. If ice covers the pond it can stop the water being oxygenated and can allow a build up of toxic gases caused by decomposition. If the pond freezes over completely do not break the ice, the shock waves can harm or maybe even kill the fish. Instead stand a hot saucepan on the ice to melt a hole through it. Even better, is to prevent the pool freezing over completely. This can be achieved by the use of a pool heater or a polystyrene ice vent. Not only do these allow gaseous exchange, but they can also help reduce the pressure on the sides of the pond caused by the expanding ice.

*The information and recommendations in this publication are for guidance only.*

*Exact maintenance will depend on pond size, position, stocking level, and equipment used.*

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Jason Scott, a regular contributor to Practical Fishkeeping magazine, who has over 25 years experience in the hobby, wrote this WaterZoo guide and others in the series.