

ON-LINE EDITION

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It is Springtime when essential pond maintenance should be carried out. After the March meeting news (below) there are 20 top tips for this work....

Meeting News – March 2014

It was crowded at The Church Inn for the March meeting. There was much discussion about the Nationwide meeting, scheduled for Sunday 16th March 2014 and several proposals were given to members who will attend. More about these next month - where adopted, of course.

Show dates were also discussed - even argued - because 2014 will see Goldfish Societies holding Open Shows within just a few days of each other....difficult for Showers and bad for the fish. Again proposals have been agreed and these will be reported when adopted.

Sherridan read a letter received from CEFAS (Centre for Environment, Fisheries & Aquaculture Science) a division of DEFRA (Department for Environment, Food and Rural Affairs) which had a few ambiguities but in effect declared that he (and fishkeepers like him) no longer needed a licence for coldwater fish kept in aquariums. A licence for fish such as Common Carp and variants (i.e. includes Goldfish), Ide, Orfe, even Rainbow Trout (except the farmed varieties for the food trade) does exist but is classed as a General Licence and is held by the government body itself. 'Coldwater Aquarium Fish' owners include hobbyists, the ornamental fish traders, public aquaria and zoos. A welcome relaxing of the rules, but as stated, ambiguous. For a more detailed interpretation see the Spring Issue (No.05) of Practical Fishkeeping, page 12. Or visit the DEFRA website at www.defra.gov.uk.

All this meant there was no time for the planned DVD showing, which will now take place in the April meeting. Note that this one is annual fee time...please attend and pay your dues.

See the next 4 pages for the 20 top tips for the Springtime pond. They are listed as 'Top 10 Tips' because I wrote them for the (now defunct) first issue of 'The Water Gardener' back in 1993. These were so well received that the editor asked for another 10 in issue 2.



Aquarian Advisory Service.

Photographs — unless otherwise stated — supplied by the author.



PHOTOGRAPH THE

The benefit of Spring bulb planting in the previous year is obvious when a colourful watergarden is seen so early in the new year. The first tip is to photograph the display so you have a record of where the bulbs are blooming, and where they are not! When Autumn returns you will be able to plant more spring bulbs where they are really needed.

The author's pond in the grip of a Pennine Winter

The same pond when Spring flowers bloom ... the first tlp is about planning this early delight.





COUNT YOUR FISH

Count the fish. When the fish rise from their Winter hibernation you need to check that they are all present and correct. If any are missing, or reluctant to join the group, gently scoop the bottom of the pond with a long handled net to find them.

The author checks the deep section of his pond with a long handled angler's net, with a pond net for removing anything stirred up from the bottom.



INSTALL NEW WATER PLANTS

Spring is the ideal time to buy new marginals because growth is then made under your watergarden conditions rather than the grower's ... which may be very different. A useful tip is to place the prepotted water plants in a cat litter tray, which in turn is



supported on bricks, pillars etc. The tray retains any spilt potting medium and allows easy removal for any maintenance.

Sheba the cat has donated her litter tray for the marginals in this pond. The tray is actually resint on plastic buckets filled with rocks to bring the plants to the correct level in the





BEAT THE GREEN WATER PROBLEMS

Free swimming algae can grow explosively when days lengthen producing a green soup in the pond. The best method of control is to kill the algae and their spores with ultraviolet light. UV units are available at all watergarden centres. Remember that they need a waterpump too. Mount the unit securely, e.g. on a fence, and hide behind a bushy



The UV unit has been mounted on a strip of softwood, which was then screwed to the fence for easy access. Note that the pump that

feeds the water through the unit is hidden under the same bush hiding the UV and fittings.



Spring is the time to buy new, young fish, but remember that they should be quarantined



An old aquarium is very useful for quarantining new fish because each fish can be viewed from all angles to check it is free of disease and parasites.

for at least a week to make sure you are not adding any diseases or parasites to your pond. Use an old aquarium or even a polythene-lined box filled with your pond water. Change that water frequently because the fish will be excreting ammonia into a relatively small volume of water. If it is impossible to quarantine new fish, pay any extra required to guarantee fully quarantined fish from the supplier.



EQUALISE WATER

When fish are added to new waters, the temperatures must be within one or two degrees of

New arrivals (quarantined!) floating in the pond in their travel bags. If bagged in Oxygen leave sealed, but if bagged in air, open the necks of the floating bags to allow fresh air to enter. Tip in when temperatures are equalised.





the water the fish are used to. Fish are cold-blooded, i.e. their body temperature is the same as their environment. Fish can slowly adjust to weather changes but a sudden temperature shock can stress the fish — and stressed fish get diseases. Always float the transit bags awhile, don't just 'tip in'.

FANCY GOLDFISH CAN BE ADDED TO THE POND

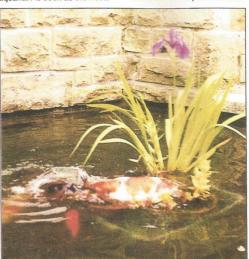
Common Goldfish can over-Winter in the coldest of ponds, but Fancy Goldfish do not survive freezing temperatures and need to be kept in indoor aquaria. As soon as the frosts Fancy Goldfish varieties benefit from pond living, especially these examples, a Comet, Shubunkin an Redcap. Bubble eyes and similar bizarre Goldfish are best kept in bare aquaria.

end Fancy Goldfish can be moved to the pond (remembering Tip No.6) where they will grow larger and develop more colour.



FEED REGULARLY AT A FIXED TIME

Feed well in Springtime to allow the fish to recover from the winter starvation. Choose a convenient time (such as when



A female Koi, with attendant suitors, scatters her eggs among the

usefully collected by the cat litter tray (see Tip No. 3).

bringing in the milk) and the fish will quickly learn to respect you. They will then be ready and waiting and digestion is more efficient. Use flake and pellet, plus scraps from the kitchen for variety.



GIVE THE ELECTRICS

All electrical connections to the pond must be properly installed with waterproof fittings and protected by a circuit breaker at the mains, but do check that Winter storms and snow have not affected any joints or sockets. A useful tip is to house these connections in a plastic 'tidy box' sold for toy storage etc. Use a slightly



The upper box is lifted to show the fountain timer and plugs safe and dry inside the lower box.

larger box upended over a smaller one. This gives a rain and bug-proof home for electrical connections. If green boxes are chosen, they will be hidden by the undergrowth.



WATCH OUT FOR BABIES

Springtime is the breeding season for most coldwater fish. Look for a female fat with eggs being chased by several males. Practically all the eggs and fry will be eaten by the fish after spawning ends so if you want to raise any baby fish, net the eggs into a separate pond or fine mesh netted area. An aquarium could be used but note that hundreds, if not thousands, of fry will hatch which will quickly pollute a traditional indoor aquarium, so don't think you can save all the babies.



r's UV steriliser discor nected ready for installing a new lamp—note the outlet pipe is larger than the inlet, another tip for good water flow through the unit.



One of the Spring Pond Top Ten Tips published in the last issue of The Water Gardener was to install the UV Steriliser so 'pea soup' algae does not develop in the Spring. If the water does start to turn green, despite having the correct wattage lamp for the water volume of your pond, change the UV lamp. Although the lamps are guaranteed for 6 months (and that is their normal life span) the radiation levels can fall off with time, making them less efficient. Check that the pump and water flows are adequate too.



UV Sterilisation is the most effective for green water but it not affect hairy algae or Blanket Weed, since these growths will not pass through the pump and tube. A much cheaper alternative, and one that does have some effect on hairy algae, is to add straw to the

pond. Once upon a time a bale of straw fell into a farm pond and was forgotten. After a week or so it was found that the green water pond cleared. Whether this was due to some seepage that is an algicide, or the simple promotion of single cell animals that ate the free swimming

algae, is still being studied. Many pondkeepers have claimed success with enough straw to fill a nylon stocking (or tights), tied to a brick and left under the water for a few months. Be careful when retrieving the stocking ... if it



by Dr David Ford of the

Aquarian Advisory Service. Photographs — unless otherwise stated — supplied by the author.



The summer pond looks very attractive if bedding plants are placed around the edge to add bright colour to the scene

The main problem with the Summer pond is the onset of algal problems, giving green water or growths such as Blanket Weed. The first five tips are ways of controlling these algal blooms:

bursts the pond will be flooded with rotting straw.
Experience shows that Barley

straw is the most effective



BLANKET WEED

A roughened long stick of vood is rotated in a pond full of Blanket Weed and the algae is gathered like Candy Floss. It can then be spread under the roses because it makes an excellent fertilizer.

Removing the Weed is also a good way of lowering the nitrate content of the pondwater. Some modern tapwaters are so full of nitrate that routine partial waterchanges no longer dilute this chemical. High nitrates are a natural consequence of fish feeding, especially with their large Summer appetites and so harvesting the algae can be very useful.



CHANGE THE WATER CHEI

Algal blooms occur readily in hard, alkaline water so changing to soft, acid water can discourage growth. Most pondfish like hard, alkaline waters too, so the change must be gradual and not too drastic. Collect rainwater and tip it into the pond, or even arrange for

the downpipe from a (nonmetallic) roof to feed into the pond, this will help lower total hardness.

To lower the pH, stuff peat from the Garden Centre (choose pure peat i.e. no added fertiliser) into a nylon bag (again tights can be used) and leave to soak in the pond or its filter. Tannic acids are released that drop the pH, which should be monitored (pH 6.5 to 7 is OK) and the peat renewed when the effect stops.



When a Heron targets a pond one of the ways of protecting the fish is to cover the water with a nylon net (usually bird netting). In many cases it was found that if the pond was green with algae, the water cleared over the following few weeks.

This is probably due to the net lowering the light levels over and in the pond. Algae needs light for photosynthesis just like higher plants, but the amount is more critical and there have been no reports of the submerged plants also dying back. Marginals continue to flourish because they can grow through the mesh



MOVE THE GARDEN **FURNITURE**

Pond fish behaviour is best observed for a long time from a relaxed position so site the garden seats etc. near the pond. Often the garden table and chairs are positioned on a patio or a lawn, more to look decorative than functional.

The pond, especially if it has a fountain and waterfall, is the best focal point in the garden. The garden furniture should therefore be an accessory to this feature, not compete with

When garden furniture is placed near the water the whole family can enjoy the pond during the summer.







REDUCE THE ELECTRICAL

VAT will be added to fuel costs at 8% this year and 17.5% next year, so this will affect the electricity bills for the pumps operating fountains and waterfalls.

A saving can be made by replacing a mains operated fountain pump with a low voltage unit (usually 24 volts) and many of these pumps can give a display almost as good as the 240 volt models.

A switch can be included in the supply, at some convenient position, so that the fountain, or any other water display, can be turned on only when the pond is being viewed.

being viewed.

Note that the pump operates a filter unit which needs to run continuously for good biological filtration. However, this is only to supply the nitrifying bacteria with oxygen. The pump can be turned off for many hours if oxygen is added via an airpump, as described in Tip No.8.



AERATE THE SUMMER POND

Oxygenating a filter or agarding the pond itself is very good for water quality in Summer. Fish losses are common when a thunderstorm is due and dense air layers over the pond surface reducing available oxygen via diffusion. In addition, rising water temperatures lower the



Some of the many airpumps sold in aquarium shops, all can operate an airstone in the pond.

dissolved levels of oxygen.

To oxygenate a pond with low electrical costs use an aquarium air pump. This can be sited indoors (garage or hut) and a long length of airline tubing run under the soil and into the pond. Although not powerful, the amount of air these minipumps supply is very great. The length of the airline (open or attached to an airstone) is critical. The pumps are designed for normal aquaria of 12in/30cm depth so the outlet should not be deeper than this



TEST THE WATER

Water test kits for ponds tend to be expensive, especially if the electronic units are bought.

A wide variety of test kits are available in aquarium stores and can be used to test pond water.

checking the water chemistry, but repeat throughout the day

There are many test kits for

aquarium owners and fierce competition has kept prices

These kits will check

pondwater just as well as

simple, just a dip stick that

and nitrate.

aquarium water. Some are very

gives an instant reading of pH,

alkalinity and total hardness.

Others check ammonia, nitrite

Aquarium chemistry tends to be stable, with changes

wrong. Ponds however, are not only seasonal, they have a daily rhythm particularly if well planted. Therefore do not just

occurring only over days or weeks, unless something is

take one reading when



and into the night to give a series of values that shows that daily rhythm... then retest later and look for trends rather than absolute values.



EXAMINE THE FLOWERING PLANTS

Water plants tend to be much more neglected than land plants, but proper management give their rewards. Removal of spent flowers and dying leaves from Waterlilies will give much better and longer Summer displays.



The author examines his pond plants, trimming them and removing any pests.

The miniature Waterlilies are prone to attacks by Midge larvae (the tougher leaves of the larger plants are not affected). Examine under the leaves for the larvae — they are tiny, transparent, worm-like animals. Scrape them off but if an outbreak is servere, the Lily must be lifted and treated separately with insecticide, all traces being removed before its return to the pond because the chemicals are so toxic to fish.

If ignored the larvae will eat the leaves from the outside edge inwards leaving a characteristic skeleton of veins. The Lily may not be killed but will give a poor flowering display.

