

# FEDERATION OF BRITISH AQUATIC SOCIETIES

## POND CARE SHEET No 5 : POND PLANTS

17/10/2003

Plants, through chlorophyll, and with the aid of sunlight, use water to convert base chemicals, the nutrients in the pond into living tissue. In doing so, during the hours of daylight they give off oxygen as a by-product. Unfortunately during the hours of darkness they re-absorb some of the free oxygen in the water and in turn give off a corresponding amount of carbon dioxide.

It is this action that causes Green Water to be a problem to fish by producing too much oxygen in sunlight causing "Air Embolisms" by day or "Asphyxiation" at night by absorbing the oxygen in the water and replacing it with carbon dioxide. Plants then have both a clarifying and purifying effect on a pond by taking up the waste products, the nutrients in the pond; the fertilizers that the feed Green Water and Blanketweed algae thereby starving them out.

Plants, however, can also be great carriers of problems.

Therefore you must disinfect all plants before introducing them into a pond, stream or aquarium. Carefully examine them for snails, snail spawn and other nasties and remove these.

Pay particular attention to the underside of the leaves, as this is where most creatures hide and most deposit their eggs.

**DISINFECT** Alum (Aluminium Potassium Sulphate).

**COMMERCIAL TREATMENT** Pond Disinfectant.

**SNAILS** Eradicate using a 9v Bell Battery or Commercial Treatments.

## SUBMERGED PLANTS

*Aponogeton distyachos* Water Hawthorn

Long oval leaves float on the water surface. White flowers smell of vanilla. Will flower repeatedly through the year.

*Ceratophyllum demersum* Hornwort

A native British plant with whorls of short dark green fine brittle leaves on long stems very small white flowers which rise 2-3cm above the water on thin stems. A good oxygenator and, as a native plant, it will survive our winters.

*Egeria densa*

A South American plant fast growing with 1-2cm whorls of light green leaves on long stems very small white flowers at water surface. A good oxygenator but half hardy, will not survive below 18°C, a sample should be removed from the pond and protected for the following year.

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### *Hottonia palustris* Water Violet

Branches of feathery light green foliage from a central stem. Pale violet/lavender flowers on stems 2-3cm above the surface. A European plant that should over winter.

### *Hydrilla verticillata*

An Africa to Asia plant with groups of 6 to 8, 2cm whorls of green leaves on long stems; leaves have a slight saw edge. Small white female flowers lay on the water surface; the smaller male flowers float free to the surface and explode ejecting pollen into the air.

Half-hardy, it will not over winter or survive below 18°C; a sample should be removed from the pond and protected for the following year.

### *Myriophyllum brasiliense* Parrots Feather

Has a feathery mid-green submerged foliage growing tips rise 15-20cm above the water in summer with stronger blue-green dense and thicker foliage producing small white flowers.

This plant will not over-winter; take cuttings and protect inside in a tray of mud.

### *Myriophyllum spicatum* One of the Water Milfoils

A feathery light green submerged foliage, the yellow or red flower tips rise 10-15cm above the water.

A good oxygenator half-hardy, Protect in winter conditions.

### *Myriophyllum verticillatum* Another Water Milfoil

Has feathery yellow-green to bronze submerged foliage, the bright red flower tips rise 10-15cm above the water. A good oxygenating plant half-hardy. Protect in the winter.

### *Potamogeton crispus* Curly Pondweed

A central stem plant with many branches. New leaves light green in pairs every 2cm along the stem and branches turning to a coppery brown with age. Quickly forms foliage just below the surface sending small white or pink flowers just above.

A hardy plant, which dies back in late Autumn and over winters by producing a perennating bud, known as a Turion, which detaches from the plant, sinks to the bottom and remains dormant until Spring.

### *Ranunculus aquatilis* Water Crowfoot

A central stem with 1-2cm branches ending in mid-green whorls of fine pinnate foliage, floating leaves narrow 1cm and elongated 3-5cm. Small white flowers with yellow base. Temperate plant, that prefers a constant flow of water, so place near the outfall of a filter system. Will only tolerate a very mild winter.

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### FLOATING PLANTS

#### *Lemna gibba* Duckweed

A small floating plant with oval light green leaves, it rarely flowers, reproduces by division and can quickly cover a pond; this inhibits green water and Blanketweed but needs controlling.

As most Fish eat and treat it as a food, it is often difficult to maintain on ponds containing fish.

A native plant that will over-winter.

#### *Limnobium spongia* Frogbit

A medium-sized floating plant with mid-green kidney shape leaves in a rosette form on extended shoots with long violet tinted roots extending below each rosette of leaves. White greenish flowers held above the water on short stalks, the seeds fall to the bottom of the pond to make new plants in the spring.

A North American plant that should over-winter.

#### *Pistia stratiotes* Water Lettuce

A large floating plant with bluish/green hairy leaves in a rosette form, a good root formation trailing below from 15-20 cm long, will flower in a hot summer, reproduces by runners.

Can quickly cover a pond in good conditions. Inhibits green water and blanket weed.

As a Mid- to North African plant it has to over-wintered in a heated greenhouse.

#### *Eichhornia crassipes* Water Hyacinth

A large floating plant with mid to dark green leaves pale blue flowers, reproducing by runners. Inhibits green water and blanket weed. A South American plant it has to over winter in a heated greenhouse.

#### *Stratiotes aloides* Water Soldier

A large floating plant, the last representative of a very ancient order. Possessing dark green sword like leaves with coarsely toothed edges, has been likened to a floating pineapple, small white and green flowers, reproduces by runners as most plants are female.

This native plant sinks to the bottom of the pond in late autumn to over-winter, resurfacing in Spring.

#### *Trapa natans* Water Chestnut

A long submerged stem with nodes along its length each having many rootlets protruding from each side. The floating leaves when new are dark red, turning mid-green on the upper side with age but remaining red below, their shape is nearly square. The fruit is mealy and eaten in some areas. Widespread throughout the globe is hardy and will over-winter.

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### WATER LILIES AND MARSH PLANTS

There are reds, pinks, yellows, violets, whites and all shades in between of named Water Lilies and so many Marsh, or so-called Bog plants, available that it is not considered reasonable to list or advise on them. Instead we recommend a small book devoted to this subject.

**PLANTS FOR WATER GARDENS** by Malcolm Edwards,  
published by Dempsey Parr, 4-5, Queen Street, Bath BA1 1HE.

Priced at under £8, has 250 coloured illustrations of Water Lilies and Marsh plants together with all the information you will require to make an informed choice.

### PLANT CARE

To give their best, all plants require some attention. Because they are submerged, once the leaves die off Water Lilies are often forgotten. Remove dead leaves and flower heads when they close and sink below the surface, and as much of the stems as possible.

Many pond enthusiasts have discarded Lily baskets and plant Lilies in buckets, such as 5-7lt Builders' Buckets according to the size of the Lily.

This has two advantages: first, the rooting compost is contained and does not leach out of a bucket (as it does with a Lily Basket) to cover the bottom of the pond with mulm, thereby providing nutrients for Blanketweed or green water. Secondly, the Lilies are easy to remove for dividing, re-potting, introducing fertilizer etc.

If you want to see lots of Lily flowers the plants will require, in addition to lots of sunshine, plenty of nourishment i.e. fertilizer. When introduced into a bucket it feeds the lily, not the pond.

The only drawback is that if planted in a bucket or 'sealed' container, Lilies must be removed and examined annually and re-potted with fresh soil. At the same time place a slow acting fertiliser in the base of the bucket or container, reduce the root stock size and the number of 'eyes' to no more than four.

Do not purchase any plant simply because it looks good or takes your fancy.

First, find out what size will it grow to?

Ask yourself if you can provide it with the right conditions to flourish?

Will it fit in with your existing plants or design?

Never purchase a Lily that requires a depth of 1 metre when your pond is only ½ metre deep, or visa versa.

Finally, Water Lilies are plants of lakes or very slow moving waters, they do not flourish with fountains or Niagara-type waterfalls. Marsh Plants also do not appreciate the continuous soaking they receive from fountains. It is no accident that with many large ponds in stately homes the Lilies are well away from any fountain, or are even without Lilies or Marsh plants.