

## **Algae in your Pond!**

I need to begin by saying that algae, is just a plant, no different to the aquatic plants that you have growing in your pond. It is not bad or unhealthy and is food for fish and other organisms. It is however unsightly when it blooms and becomes excessive. All algae needs to grow are the same three things that all plants need, sunlight, water and food. We cannot remove the water and if we remove sunlight our pond ecosystem will die so we need to limit the amount of food that the algae has.

During Spring Nature sets up beneficial bacteria colonies to take care of waste produced by fish and other decaying debris. The bi-product of this process is Nitrate. Nitrate gets consumed by some natural bacteria, plants and algae. If you don't have enough aquatic plants growing in your pond or the plants are slow coming away there will be an excess of Nitrate for the algae to feed on and so you get an algae bloom. Some algae, is normal, excessive algae is a symptom of excessive nutrients (Nitrate).

Ponds over stocked with fish will also have problems as the fish become more active they produce more waste (more fish = more waste = more Nitrate) and as nutrient levels rise algae blooms. Maximum stocking should be one 10cm fish per 200 litres. Note: this is absolute maximum and bigger fish means less fish.

Don't over feed your fish (only feed them what they can consume in 1-2 minutes, they will have plenty to eat in the pond anyway.) A good rule of thumb is 2-3 mouth-fulls per fish once or twice a day during Spring & Summer. Feed less in winter & do not feed if water is constantly below 10°C

You need aquatic plants to compete with the algae for nutrients I recommend at least 40% to 60% of a pond surface area to be covered by plants, this includes water lilies. It is normal for a little excess algae growth on waterfalls as there is a concentration of nutrients in that area.

### **Pond Algae solutions**

You may at some point find yourself dealing with either string algae growing from the side of the pond or rocks or perhaps green water where algae is free floating. Algae is nature's response to minerals and

nutrients in the pond not being removed by our two friends, pond plants and natural beneficial bacteria. All three living organisms will compete for the nutrients in the water. We would prefer for the pretty water garden plants and some unseen beneficial bacteria to remove the nutrients rather than getting an algae bloom.

Pond plants and their containers do not cause algae so please do not be afraid to add good heavy soil and pea gravel in containers to the pond, or better still plant your plants directly in the gravel bed. Pond plants remove nutrients (often decaying debris, minerals from stone, and mainly fish waste from the water). This leaves the water clean. Waterlilies also help shade part of the pond.

Shade is important to prevent algae and also to protect fish from too much sunlight and predators like birds.

Over feeding fish is a huge culprit of pond algae problems. Chemicals may kill the algae for 3 days but the dead particles return to algae as soon as the chemical dissipates in the water. The result is a vicious cycle of time, money, and unhappy pond owners.

Waterlilies are good but marginal and bog plants are better, especially when planted without pots or baskets.

Keep your waterfall or fountain running 24/7, your pond needs lots of oxygen (it needs more oxygen at night than during the day).

Prevent runoff from the surrounding landscape from entering the pond.

A high pH promotes algae growth and inhibits plant growth, sometimes a problem in concrete ponds.

Some algae growth is to be expected and normal, especially on waterfalls where there is a high concentration of nutrients. This can be scrubbed off occasionally with a stiff brush. If your pond is well balanced there will be minimal algae growth in the pond itself and the fish will consume some of this.