



How to Control Algae and Green Water in your Pond.

Algae

Pond keepers often find algae a major concern. This unwelcome, invasive, green plant life can make the pleasure of having a water feature, pond and fish seem like a chore. Algae obscures fish, deletes valuable oxygen in the water and marks water features. However, with a few simple steps you can reduce the algae and start to see the beautiful unobstructed serenity of your water garden.

Understanding Algae

Algae are primitive plants. They convert energy from sunlight into chemical energy for plant growth. During the day, algae combines water and carbon dioxide and produce sugars, energy and oxygen. At night when sunlight is not available algae uses the sugars and oxygen to form carbon dioxide. This depletes the oxygen levels in the pond.

There are basically two types of algae — green water and string algae

1. **Green Water Algae:**

Green water algae are single-cell organisms which remain suspended in the water. They are so tiny that they can pass through even the finest filter. If there is plenty of nutrients and sunlight, there may be as many as five million algae cells per milliliter of pond water.

2. **String Algae:** (also known as “hair algae”)

This algae grows in long stands and adheres to rocks, sides of ponds and water features. Eventually the strands can tangle together and form thick mats. String algae can double its weight in 24 hours.

Eliminating Algae

The following are some of the tried-and-true methods that will help you treat algae, and also help prevent it.

1. **Add plants:**

In the natural setting, fish produce nutrients that are absorbed by plants. This reduces the amount left available for algae to utilize. However, many garden ponds do not have enough plants to absorb all the nutrients produced by the fish. This causes the excess to build up and produces an ideal environment for algae to grow.

Whether you are just beginning to establish a pond and just want to avoid the algae problems or you have an existing problem to control, you'll first need to increase the number of oxygenating plants in the pond. This is perhaps the simplest long-term solution to keeping water clean and clear.

Floating Plants, such as lilies and lotus, provide shade and reduce the amount of direct sunlight in the pond which helps to control the algae. You can also add submerged oxygenating plants such as anacharis, hornwort, milfoil, vallis, water horn, dwarf arrowhead, water poppy and parrot's feather to increase the oxygen in the pond water. As a guide one bunch of six or seven stands of oxygenating plant can be added for every two square feet of water surface. These can be submerged by tying to a rock or planting in soil.

All aquatic plants also absorb nutrients and starve the algae. Initially, when aquatic plants are added to the pond, green water may occur, but this will last only a short time. Planting established marginal plants (swamp plants) around the edge of the pond or in the shallow section of the pond will provide shade for the pond and absorb nutrients and so can help to control algae.

One popular way to introduce plants to control algae, without putting plants in the main pond, is to construct a 'plant filter'. A plant filter is a channel or small filtration pond through which the water from the main pond is fed at a relatively slow rate before returning to the main pond. Fast growing plants (efficient nutrient removers) are grown in the small pond in planting baskets or are free floating, such as water lettuce or foxtail. The plant filter should ideally be lined with 5cm (2 inches) of pea gravel. The pea gravel is effective in several ways. It helps the plants to root, catches debris and acts as a bed for beneficial bacteria to grow. As the plants grow they absorb the nutrients from the water and help to reduce the algae. The area of plants in the plant filter need to be equal to one-fifth of the surface area of the main pond.

2. *Water Treatments:*

Water treatments are an excellent option where algae problems already exist or preventing algae in ponds and water features. Green water and string algae can be controlled using repeated applications of an effective water treatment. Reapplication is necessary for maximum effectiveness, but be sure to follow the dosage instructions.

'Frogs'

One of our most popular water feature water treatments are the Bionatural Feature Pond Block commonly called by our staff as 'Frogs'. This product is economical and easy to use. It is also harmless to fish, pets, pond plants and wildlife when used as directed. We also have a number of other products that can assist with algae and pond maintenance.

3. *Fish Feeding:*

Using high quality fish food will also help discourage the growth of algae. High quality fish food is fully digested by the fish and, therefore, fewer nutrients pass through the fish and into the pond reducing the amount of nutrients available for algae.

4. *Filters:*

Some pumps have a filter incorporated into them. Extra filters can be added to some pumps for large ponds. However, all filters need to be removed and cleaned regularly in order for them to work effectively.

5. *String Algae Removal:*

String algae can be removed from the pond by using a garden hose to blast it off rocks and areas where it is clinging. It can then be removed from the pond by hand or with a net. It is important to clean the filter when trying to eliminate string algae.

When it comes to controlling algae, Balance is Best:

No pond will be totally free of algae, but in a balanced environment algae can be kept checked. The use of water treatments, pond and filter maintenance and other algae elimination methods (such as UV clarifiers in large ponds) are good methods of treating and preventing algae growth. We can learn from Mother Nature and utilize water plants as long term solutions.