

Algae Control

What algae is

The first thing to understand when dealing with algae is what it really is. While many types of algae are not aesthetically pleasing, algae is a plant, and some algae is both unavoidable and beneficial. One kind of helpful algae can often be seen as a fuzzy growth around the edges of rocks in your pond. It acts as a filtration system by providing a place for beneficial bacteria to colonize. This kind of algae is also an excellent food source for tadpoles and fish.

There are two primary kinds of undesirable algae. The first, planktonic algae, is uni-cellular and will appear free-floating in the water during the warmer months, potentially making your pond look something like pea soup. The second kind, filamentous algae, also called string algae, can remain in a pond year round depending on your specific climate. It prefers to cling to rocks in the moving water of a stream bed or at the base of a waterfall.

Why algae grows in your pond

There are a number of things that affect the growth of algae in a pond. Water temperature, pH level, and stagnancy of the water all play a role. The two largest factors, though, are the availability of sunlight and excess nutrients in the pond water. Most excess nutrients in the average pond are the result of overstocking of fish, overfeeding of fish, and decomposition of organic matter in the pond.

How to help prevent algae outbreaks

The most effective algae deterrant, regardless of which type of algae you're trying to avoid, is other plants. Floating plants, such as Water Hyacinths (*Eichhornia crassipes*) and Water Lettuce (*Pistia stratioides*), and submerged plants (oxygenators), such as Anacharis (*Elodea densa*) and Hornwort (*Ceratophyllum demersum*) are particularly effective. The floating plants provide shade to a portion of the pond, which reduces the amount of sunlight available for algae growth. Both the floating and submerged plants also help absorb many of the excess nutrients in the water before the algae has a chance to take hold.

Another recommendation to help avoid algae problems is to utilize filtration. Biological filtration systems, which provide a place for beneficial bacteria to colonize, help clear up the "pea soup" variety of algae by competing with it for nutrients. They also assist with the nitrogen cycle by breaking down dead organic matter in the pond. Another option, UV filtration, damages the cell wall of the algae by exposing it to UV radiation, but only works on the unicellular "pea soup" kind. Lastly, some kind of mechanical filtration, which can be as simple as using a skimmer, is useful in removing dead organic material from the pond. This will help discourage both unwanted kinds of algae.

Other options if you already have an algae outbreak

First, what not to do. Do not drain and clean the pond to get rid of the algae. The tap water used to refill it will almost always throw the chemical balance of the pond off, encouraging even more algae growth than before.

For string algae specifically, manual removal is recommended. To accomplish this, just twine the string algae around the tines of a plastic shrub rake, like spaghetti around a fork, and pull it out of the pond.

There are also pond treatments and additives available for existing algae problems. One of the most recommended for the “pea soup” kind of algae is the addition of beneficial bacteria, available suspended in both liquid and dry forms. The liquid version is faster-acting and therefore convenient for starting biological filters in the spring and for pressing algae problems. The dry version is more economical and typically recommended for maintenance doses throughout the season.

In addition to beneficial bacteria, there are a number of other pond treatments that can help get algae outbreaks under control. Algaecides can be an effective option for both kinds of algae, but make sure to use one that is safe for the fish and ornamental plants in your pond. Pond shades are dyes which tint the water and help keep both types of algae from getting the sun they need to thrive. Bales of barley straw are also available, which naturally release chemicals into the water as they decompose that help to prevent string algae growth. In addition to these, there are an assortment of other pond treatments available, but not all are equally effective on both kinds of algae. Be sure to read the label of any pond treatment you are considering to determine whether it is effective on the kind of algae you want to get rid of and safe for the other inhabitants of your pond.

Happy water gardening!

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