



Algae Control

There are two main types of algae which cause problems for the pond keeper: suspended microscopic algae, which are so small and appear in such quantity that the pool looks green, and filamentous algae, which joins together to form long strands, also known as string algae. Keeping in mind that algae is a simple plant which requires sunlight and nutrients to survive, a pond keeper must know decide upon a method, or a series of methods, to deprive it from these needs.

Patience is the key...

Even if your pond is not overstocked with fish and you've kept up on the fall maintenance before your water garden went to sleep for the winter, spring often will bring a bit of algae and green water until the plants have completely awakened. *The pond will balance itself out with time.* Although performing a complete water change may seem like the answer to green water, until the plants have awakened and begun to pull nutrients from the water, the green will return. In addition, any scrubbing out of the pond will only end up removing much of the beneficial bacteria needed to create and maintain this balance.

Ecological Balance...

Enough plants in a pond will help maintain and provide you with clear water, even in a full sun situation. Many sources will recommend a list of different plants, however just enough submerged oxygenators (Anacharis, Hornwort, etc.) and hyacinths or water lettuce, to out-compete the algae for nutrients, will keep a pond green free. Some of today's filters (such as some of the filter falls) will rely upon water passing through plant roots to remove nutrients in addition to the normal filter medias. The general rule for proper stocking of submerged aquatics, to aid in ecological balance, is one bunch per square foot of pond surface area, however a larger fish population will sometimes require more. In addition, regular addition of beneficial bacteria, such as Benekoi™, will aid in the overall balancing and health of the pond, regulating and assisting in the conversion of useable nutrients by various aquatic plants.

Keeping the pond clean...

If fish waste and other organic debris are allowed to collect on the bottom of the pond, you are providing a perfect environment for the algae to grow. The organic waste allowed to sit on the bottom will begin to decompose, releasing a continuous supply of nutrients for the algae to survive on. Diligence in the fall, with leaves and other debris, regular cleaning maintenance throughout the season (i.e. spent lily blossoms, lily pads, dead growth, etc.), and proper fish feeding will greatly improve the clarity of your water. In addition, occasional vacuuming or mechanical removal (i.e. skimming, netting, etc.) up of the fine organic matter build-up ("muck") on the bottom in conjunction with partial water changes may be helpful.

Barley Straw...

An effective algae control solution is Barley Straw. Found in various forms throughout the industry, from the barley bails to the more favorable extracts, barley is most effective in the fall to early spring when applied at the recommended doses. If using the straw form, be sure to remove it from the pond before it begins to decompose and starts to add additional nutrients to the water.

Mechanical controls and removal...

Many of the mechanical filters on the market will aid in the removal of the suspended microscopic algae, as well as any of the smaller organic waste held in suspension, by trapping it in the media as the water carrying it passes through the filter. Because many of the filters are closed off to light, this lack of light will





kill off the algae. In order for the filter to be truly effective during periods of green water, the filter media will have to be cleaned regularly.

Removal of the filamentous algae (string algae) can be done simply by twirling it around a stick or skimming it out of the pond using a sturdy pond net. Any algae build-up on the rocks or on watercourses/waterfalls can be done using a scrub brush or similar item, without using soap or any chemicals (Be certain brushes used have not been used for any other cleaning process and/or have been in contact with any cleaning agents.)

Ultra- Violet Clarifiers (UVCs)...

Ultra-Violet Clarifiers use ultra-violet light to kill free floating algae. Ultra-Violet Clarifiers (or UVCs) are placed in-line outside of the pond, or are part of the existing filter, and damage the cell all of the algae as the circulating water passes by the light. UVCs can also aid in killing some of the problematic parasites (in their free-swimming stages) that may be found in the water. Many pond owners are beginning to implement UVCs in their existing systems to avoid, or lessen the occurrences of, the normal spring green water routine. Most UVCs on the market are designed for simple installation with minimal plumbing changes.

Shading the water...

By shading the water, algae growth is impeded or prevented by robbing the simple plants of the light required for growth or survival. Many botanical gardens shade their ponds using water dyes. The dyes are available in blue and black. The only draw back to dye shading are in the early spring this will impede the growth of aquatic plants and prevents easy viewing of any aquatic life (such as fish). If using a dye, be sure to raise (if possible) any aquatic plants closer to the water surface in the early spring until they are established before replacing them to their normal depths.

Shade can also be supplied by surface covering plants such as water lilies and floating plants such as water hyacinths or lettuce. The American Horticulture Society recommends covering 2/3 of the water surface. One thing to keep in mind however is that the primary source of pond's oxygen occurs at the water surface and too much surface coverage can result in low oxygen levels (especially during periods of warm temperatures). In cases of extensive surface coverage, additional aeration may be required.

Chemical controls...

There are many chemical algae controls out on the market today. These chemicals will provide a simple one-time fix but will not be effective in any long-term control. Pond keepers should use caution when selecting chemical controls because some of the chemicals can be harmful to aquatic life (i.e. fish, snails, etc.) and/ or plants. Be sure to read and follow all directions when using any chemical controls.

