



# ALGAE CONTROL

## Dry Land Flower Bed Example

Imagine taking a section of your lawn and stripping off the grass and then just leaving it for a while. You would expect weeds to grow. They have the proper growing conditions of soil nutrients, sunlight, rain and no competition from good plants. If instead of leaving it alone, imagine you were to make it a dry land perennial bed. You would plant some annuals, perennials, shrubs and add some mulch.

During the first year of your new flower bed you would add some pre-emergent weed killer and you would still have to do some weeding. The second year, there would be less mulch to add and less weeding to do because the perennials and shrubs would be filling in and maturing. There will always be a weed or two, but the maintenance level drops as the good plants mature and compete with the weeds. If you left all the plants just sitting there in pots, you would not expect them to compete with the weeds. A few annual plants in pots do not compete with the weeds, but are still used because of their beauty.

## Wetland Flower Bed

The water garden is nothing more than a wetland perennial bed that needs plants to grow and mature. The plants will compete with the algae for nutrients and sunshine, but they do not eliminate the algae. It takes time for the good plants to mature. In both the dry land and wetland flower beds, plants left in pots can look pretty, but do not have root systems that fill out into the surrounding soil or gravel, so they do not help much with competition with the weeds. Aquatic annual plants in pots can still be used to for their temporary beauty.

Use under water plants, floating plants and shoreline plants removed from their pots to compete with the weed of algae. Make a campfire ring of stones, fill the space with gravel and plant shoreline plants in the rock flower pot and they will take their nutrients from the pond water.

## Aquatic Ecosystem Using Bacteria

The aquatic ecosystem also has fish, bacteria and other organisms thrown into the mix. The fewer fish and the larger the filters the easier it will be to maintain the whole system. Some varieties of bacteria help to eliminate the green water algae. There is a lot of research going on as to how they do this, but for now, we can purchase bacteria products that do a good job in competing with the algae that should be added on a regular basis to the biological filters and the pond.

The more surfaces there are for bacteria to colonize the better. Filter media and some rocks in the pond will help more than just bare liner. The more often the water in the

pond reaches the bacteria the better too. Small ponds have relatively more fish and more sunlight than larger deeper ponds so they have more problems with algae and need more filtration. Ponds under a few thousand gallons often need all the water to go past the filters every hour or even faster. Large ponds can often cut back to once every few hours.

#### Chemical Algae Controls

If you do not want any plants, then you have a water feature like a swimming pool or fountain and it is maintained the same way - with chemical weed control. And, just like in a swimming pool, no matter how often the chemical sterilizers are added, the algae does come back. Algae is a normal, necessary component of a water garden.

It may take a few weeks or even months for the new pond ecosystem to start out competing the weeds for nutrients. In the meantime, there are several algae controls for backyard ponds. AlgaeFix from Aquarium Pharmaceuticals (AP) kills all varieties of algae and is safe for fish and plants. It works in cooler water than good plants and bacteria, in fact it works as long as the water is not frozen, making it a great product for early in the spring. AccuClear also from AP clumps floating algae and dirt together to make it large enough for the filters to clear out, but it only lasts a day or two. It is good for algae control in ponds of green water too large to drain and refill the day before a party.

Algae controls work well for short term use, but the ecosystem is a better long term control. You will have to be patient with algae controls in a pond. Imagine adding a drop of water to a sponge. It does not get the entire sponge wet. The algae population in a pond is just like a sponge. We are trying to get the entire population wet with the algae control product. It will take a few dosages to do the trick. Just follow the label directions and continue with the treatments, even when they seem to be slow in working. And then remember, algae is one component of an ecosystem, we are not trying to eliminate it unless we are trying for a sterile system, like in a fountain.