

A FEW THINGS TO KNOW ABOUT...

ALGAE IN YOUR LAKE

Controlling Algae

Diffused Aeration

Ever see a fish tank with bubbles? This is the same principle applied to larger bodies of water. Adding oxygen to water with bottom diffused aeration can help reduce the nutrients that promote algae growth by speeding up the breakdown of organic matter at the bottom of the lake, thereby reducing the nutrient rich muck buildup.

Removing this 'stratification' through aeration also balances the pH levels. Many of the worst algae species including the 'toxic' ones prefer high pH still-water habitats.

Biological options

There are a number of agents that can reduce algae by:

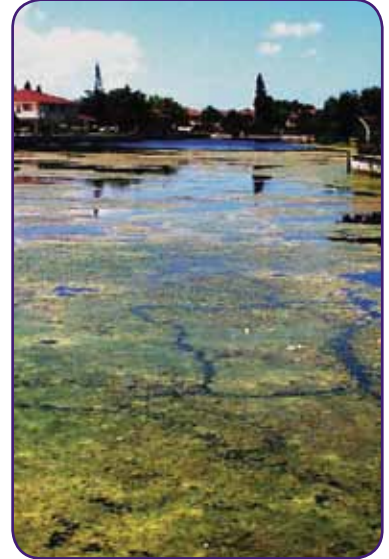
- Increasing beneficial microorganisms that reduce nitrogen, balance the pH levels and speed up the breakdown of muck
- Shading the water to reduce photosynthesis
- Binding to nutrients to make them inaccessible to algae

No matter where you live, algae can make the water green and slimy.

However, they are essential to the ecosystem, providing food for all types of animals including fish, insects, mollusks, zooplankton (microscopic animals). Algae occur naturally in all types of systems and are indicators of an ecosystem's condition, including the amount and type of nutrients present in the water.

Are algae plants?

The classification of algae has long been debated by plant taxonomists. Algae are able to photosynthesize, a key characteristic of plants, but lack true roots, stems, or leaves so are not considered plants. The two main groups of algae are prokaryotes (no nucleus) including the blue-green algae (aka cyanobacteria); and eukaryotes (contain a nucleus). There are microscopic algae, like phytoplankton; and macroalgae that can be seen by the naked eye.



Harmful Algal Blooms (HABs)

Although most algae are not harmful, blooms of some types of algae can be detrimental to the environment, plants, or animals. A few species release toxins that are hazardous to animals and humans. Cyanobacteria are the most common form of toxic algae. Their toxins cause skin irritation on contact, or more severe reactions if the water is ingested. In addition to identification of problem algae, toxin testing is also available.

Types of Algae

Cyanophyta - Blue-green algae which can exist in low nutrient to very high nutrient environments.

Chlorophyta - Green algae is the most diverse group with 7000 species identified

Bacillariophyta (Diatoms) - Considered a quite beautiful group due to their silica shell design

Xanthophyta - Yellow-green algae with branching filaments that form scum in still or stagnant fresh water

Charophyta (Stoneworts) - Often mistaken for true plants due to the whorls of filaments that occur at nodes along the shoot

Whatever your algae issues are, Vertex Water Features Aeration and Micro-Lyfe products can to help improve your pond or lake. Call us for an evaluation today: **800-432-4302**

