

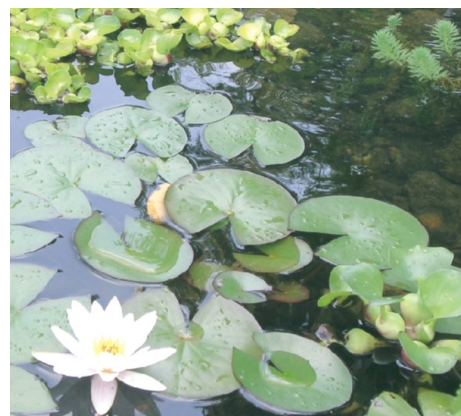
# Tackling pond algae

Your pond will always have some algae on the rocks.  
Keeping excess algae out of the pond is a 5-part process...

## 1. Water Change (Also, water source)

Change 15% of the water every 2-3 weeks not counting evaporation. So bail or pump out the water and replace it with fresh water. We suggest using well, rain-collection or tap water to fill ponds. When replacing the water be sure to add heavy metal/chlorine remover and/or stress coat (**right**) to protect fish. Water from tile systems and storm water runoff to your pond from the lawn will add nutrients that will grow algae.

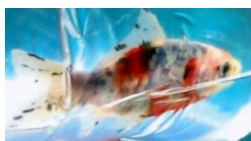
Chlorine & Heavy Metal Neutralizer & Stress Coat



## 2. Plants

Plants' roots compete for the same nutrients that grow algae. The more healthy plants you have, the less algae. A typical recommendation is to have 40-60% of the surface of the pond covered with plant growth by mid-

July. Combine floaters and underwater plants for the best success (**above, right**). Also, it's very important to make sure plants are anchored by the rocks in the pond or planted in baskets with water plant potting media - **not soil**. Soil will grow algae.



## 3. Fish Population

They are fun to have aren't they? But, we recommend you limit your pond's fish population. We recommend the measurement for Koi is 1" of fish per 10 gal. of water. For goldfish, you can allow more fish. Fish waste is a major nutrient source to grow algae and so is leftover food.

## 4. Biological filters

In any way possible, grow some good bacteria in your pond and these guys act like Pac Man consuming algae. Always start by adding bacteria to your pond from a commercial source. You can purchase bacteria in liquid or powdered form or use barley in some way to grow bacteria. Liquid bacteria are dated for freshness so make sure your supply is in date and never freezes or overheats and is kept out of direct sunlight.

The best biological filters are biofalls but you can grow bacteria on any porous surface. Choose filter pads, mesh bags full of lava rock or baskets full of aquatic potting media. Never wash out your bacterial filter. You want it to be gray and slimy; that's perfect! If it needs a rinse, place it on concrete and gently pour water from your pond over it.



Commercial sources of live bacteria

Pond Perfect, Pond-Zyme Plus, Ecofix, Microbial Algae Clear, Microbe-Lift



Porous media to grow bacteria  
Filter media (available in various shapes)

## 5. Using algaecides

Most algaecides are fish and plant safe. For the best success, until your pond is in balance and you have a good feel for algae growth (and this can change from year to year) treat with an algaecide on a regular basis. Many algae are single cell organisms and the algaecide works by reducing the oxygen levels in the water which breaks the cell wall of the algae. They work best in cooler water temperatures so use them in the evening. If you have fish never turn off your pump when using them.

**See specific products for treatment directions.**



Green Clean & Algae Fix