

## Does my pond need a filter?

When I built my first pond 20 years ago, I did not have a filter. They did not even make pond filters in those days. Being a “plant person” my water garden had lots of water lilies, and many other aquatic plants. I had a handful of fish and my water was pretty clear.



That’s because plants really help to keep the water clear by removing nutrients (mainly phosphates and nitrates) that algae love. Plants, like water lilies also help by creating shade, thus reducing sunlight. Sunlight is the other necessary ingredient for producing algae. When the pond is mostly covered with plants, you can be pretty sure that the water will be clear. But where was my reflective pool?

I have discovered since those early years that fish are a big part of the pond experience.

Unfortunately, fish continuously add particles and nutrients of their own by pooping in the water. They also like to root around in the soil (of the plants) and this will contribute more particles to cloud the water. These nutrients (and sunlight) nourish billions of unicellular (one cell) algae which give your water a greenish tinge and then you can’t see through it.

Today we have filters with an Ultra Violet light incorporated in them which emit UV rays that destroy the green algae’s DNA. The result: alga is virtually eliminated from your water, and if you have taken care of the particles, the water should be crystal clear. Of course, you need to size the UV according to the size of your pond.

The rest of the filter removes particles from the water by trapping them in its media (usually sponges). This is often referred to as mechanical filtration. Another important function of the filter is to perform ‘biological filtration’. The filter provides lots of surface area for beneficial microbes to grow on. These vitally important micro organisms break down organic matter and eat up various toxins (such as ammonia and nitrite), thus purifying your pond. Some also use up the phosphates in your pond.

Unfortunately, filters will not eliminate string algae because this type of alga is anchored to rocks or the side of the pond and so it will not ever go through the filter. I will address this problem in another article. In the mean time, if your water garden is a fish pond, and you like your water clear so you can see the fish, it’s a good idea to have a filter.