

## String algae in garden ponds and how to control it.

Ponds, like us are living systems and much like our children, they don't always behave the way we want them to.

On this point, I am reminded of the pond and waterfall that I built for one of my clients. They decorated it with some aquatic plants and a handful or so of goldfish. Although the water went through an initial 'green phase', the pond soon cleared up. They told me how they spent many enjoyable hours with the relaxing sound of the waterfall and lazily admiring the fish. Everything about it was wonderful that first summer. Next spring, they were rewarded with a pair of Mallards that decided to nest nearby and spend time playing in their pond. This completed their picture-perfect pond! It was mid-June when they first noticed some green clouds in the pond and a few weeks later there was green goo hanging down their waterfalls. That's when they decided to call me...

I told them that it was string algae (also known as filamentous algae) and not to worry because it will not harm the fish, as long as it does not take over the whole pond. It is mostly an unsightly problem, especially in the waterfall. One simple thing that you can do to immediately improve the waterfall is to turn off the pump for a couple of hours during a sunny afternoon. String algae hate this because it needs water to survive. It will come back eventually, but you will have a reprieve for several weeks and when it does, you can dry it out again. A word of caution here: do not keep the pump off much longer than a couple of hours because the lack of oxygen will harm the beneficial organisms that keep your pond healthy and this will only magnify your problems.

Filamentous algae grow by forming long threads that can intertwine with each other to form dense mats. Being rather lazy, these algae prefers shallow moving water where sunlight is most intense and nutrients are delivered to it in abundance. So, if you have a creek or a waterfall that's a perfect situation for it. There are hundreds of different species and since most can reproduce by microscopic spores, it is only a matter of time before they show up in your pond. There are also some slimy types that can form floating mats on top of ponds. Luckily, the types that are most common in the South Okanagan are more like fine hair than slimy and they are anchored to a substrate. Because it is anchored to the liner or rocks, it doesn't pass through the UV chamber to get wiped out by the ultra violet rays.

In order to control it, we need to understand what algae thrives on. Algae need nutrients (mostly nitrates and phosphates) and sunlight. Knowing this, there are several things that you can do to discourage its growth, and to make this easier to understand, we will group these into three categories: mechanical, biological and chemical. Often it is best to use a combination of these.

## Mechanical Control

Mechanical control simply means you physically remove it, usually by twirling it either around your hand or you can use something like a plastic garden rake. Some people find that a toilet brush works really well for this. You will get instantaneous results, but it will most likely come back in a few days and it is difficult to get all of it. The good thing about this method is that you are also instantly removing nutrients from your pond and I like the feeling of satisfaction that it gives me.

Koi and Goldfish like to eat string algae, especially if you don't feed them too much. It is a healthy addition to their diet and they will spend hours picking away at it in ponds that are not over run by it. There is also a species of fish that is supposed to have a ravenous appetite for string algae and that's the Blue Tilapia. Unfortunately, it is not winter hardy, so you would have to bring them inside.

