**VIRESCO™ AQUA FOR SUPPRESSING BLANKET WEED AND ALGAE BLOOM IN PONDS**

**Introduction**

We have a number of micro-organism based products that are used in horticulture and aquacultures. Those used in ponds to suppress algae are called Viresco™ Aqua, Viresco™ Koi and Viresco™ Pond. Viresco™ Aquarium is used to suppress algae in aquariums. Other aquatic products are Viresco™ Digestor and Viresco™ Filter-Start.

**Background to Viresco™ Aqua**

Viresco™ Aqua was initially formulated for use on commercial fish farms to improve the growth and health of fish and reduce ammonia build-up. There are two separate groups of micro-organisms in Viresco™ Aqua. One group is designed to effect rapid water clarification. This is done by efficient microbial reduction of the soluble nutrient level in the water. Blanketweed and green algal blooms are rapidly suppressed as they no longer have a food supply. The other part of the formulation gives an efficient biodigestion of the organic detritus on the walls and bottoms of ponds.

**Viresco™ Aqua for Pond Treatment**

The amount of Viresco™ Aqua required for pond treatment is usually about 10g per 6000 gallons of water. (6000 gallons is equivalent to 27m³.) Viresco™ Aqua is harmless to fish and plants and it can be over-dosed with no problems. As an example, one customer has applied in one dose, for four successive years, a 10g pack to his 1000 gallon pond! It is important to have enough oxygen in the water when Viresco™ is used as it contains aerobic micro-organisms. If it is used in a pond without sufficient oxygen, its effectiveness will be reduced. It could also deprive fish of oxygen. If there is any doubt about the oxygen levels then start with a reduced application and watch the fish carefully. Then continue to add the full amount over a few days. If the fish move to the surface, they are not receiving enough oxygen and aeration will be required immediately.

Many pondkeepers build a pond and then install a filter that has excess capacity for that pond. Then they increase the fish stocking level, knowing that the filter is capable of processing the increased amounts of ammonia excreted by the larger numbers of fish. Where this situation applies, larger doses of Viresco™ are required as the microbes in Viresco™ work on the amount of nitrate coming into the pond from the filter. Overstocking of fish and more than generous feeding means more ammonia, more nitrite and therefore more nitrate. A good yardstick is if there are more than about 60 inches length of fish per 1000 gallons of pond water, then double dose with Viresco™ Aqua.

**Method of Use**

Viresco™ Aqua powder should be added to between half a bucket and a bucketful of pond water and dissolved. Once the powder is in solution, it should be aerated by whisking or using an air stone. Leave for a few hours inside a garage or house away from direct light. It is recommended that the mixing takes place in the morning and the solution, bulked up with more pond water, added to the pond in the evening. Pour the solution into the pond at points all around.

The microbes in the powder have a very long shelf life - many years - if kept dry. There is a tendency for the product to go crusty in the pack. This is not a problem.

**Quantity to Use and Frequency of Use**

Our recommended rate of use is normally enough to clear blanket weed. However, as mentioned above, there are occasions when further treatment is required. Viresco™ are required. These usually relate to overstocking of fish and more than generous feeding. It is recommended that nitrate tests are done when Viresco™ Aqua is used. Do a test immediately before the application and then repeat at weekly or biweekly intervals to see if the levels are dropping. If the nitrate level is dropping and the microbes in the product are working. If little change is seen in the blanketweed within about 3 weeks then a second application of Viresco™ Aqua is recommended. When the blanketweed has disappeared, it makes sense to add top-up amounts of Viresco™ Aqua. This could be say one third or one quarter rate every 3 or 4 weeks.

**Aeromonas and Disease**

The reason why fish succumbs to a bacterial or fungal disease is that bacteria or fungi that form the disease become predominant. If the pond system were kept in better balance and the disease microorganisms had greater competition, then they would not become predominant and form the disease. The micro-organisms in Viresco™ are present in many different species and they are disease forming ones but compete with them for food and space and keep their numbers down so they do not take over.

Aeromonas bacteria, which can cause severe problems, is kept at bay in the same way as other pathogenic microbes by the competitive action of the micro-organisms in Viresco™ Aqua.

**Use of Viresco™ Aqua in association with Chemicals and UV lights**

It is important not to use Viresco™ Aqua in the presence of biocidal type chemicals. These would include malachite green, formalin, potassium permanganate etc as well as some proprietary medications. It is worth checking with the manufacturer of such products their effect on micro-organisms - as a rule of thumb, any product that knocks-back the bacterial flora is going to be less effective. Some disinfectant have a very short period between disinfectant treatment and the application of Viresco™ Aqua. Initially we recommended that UV lights should be turned off prior to adding Viresco™ Aqua and kept off for about 7 to 10 days. UV light is a sterilant and might destroy bacteria present in Viresco™ Aqua. However, evidence from some people has shown that UV's need not be turned-off when Viresco™ Aqua is used.

**VIRESCO™ AQUA IS NOT A CHEMICAL

IT IS A BIOLOGICAL PRODUCT CONTAINING MICRO-ORGANISMS.

VIRESCO™ AQUA IS HARMLESS TO FISH, PETS, PEOPLE AND PLANTS.

IT WAS INITIALLY FORMULATED FOR USE ON COMMERCIAL FISH FARMS

OVERDOSES WITH VIRESCO™ AQUA CAN CAUSE NO PROBLEMS**

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