

## VIRESCO™ KOI FOR SUPPRESSING BLANKET WEED IN PONDS

### Introduction

We have a number of micro-organism based products that are used in horticulture and aquatics. Those used in ponds to suppress blanketweed and algae are called Viresco™ Aqua, Viresco™ Koi and Viresco™ Pond. Viresco™ Aquarium is used to suppress algae in aquariums. Other aquatics products are Viresco™ Digester 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 the disease potential. 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™ Koi for Pond Treatment

Because many koi keepers ensure they have little organic waste in their ponds by using bottom drains, vacuums and skimmers, the waste digester portion in Viresco™ Aqua is superfluous. We therefore introduced Viresco™ Koi. This contains only the micro-organism mix that reduces the nutrients on which blanketweed feeds. Overdosing causes no problems with these microbial materials so, using the same quantities for the same volume of water as for Viresco™ Aqua, we are therefore recommending an increased dose.

The amount of Viresco™ Koi required for pond treatment is about 10g per 6000 gallons of water. (6000 gallons is equivalent to 27m<sup>3</sup>.) Viresco™ Koi is harmless to fish and plants. It is important to have enough oxygen in the water when it 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. 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 install a filter that has excess capacity for that pond. They then 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™ Koi.

### Method of Use

Viresco™ Koi powder should be added to a limited amount 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 - 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 amounts of Viresco™ are required. These usually relate to over stocking of fish and more than generous feeding. It is recommended that nitrate tests are done when Viresco™ Koi is used. Do a test immediately before the Viresco™ is applied and repeat at approximately weekly intervals. If little change is seen in the blanketweed within about 2 weeks then a second application of Viresco™ Koi is recommended. When the blanketweed has disappeared, it makes sense to add top-up amounts of Viresco™ Koi. This could be, say, one quarter rate every 3 or 4 weeks.

### Aeromonas and Disease

The reason why a fish succumbs to a bacterial or fungal disease is that the pathogenic bacteria or fungi have become predominant and form the disease. If the pond system were kept in better balance and the disease micro-organisms had greater competition, then they would not become predominant and form the disease. The micro-organisms in Viresco™ are present in huge numbers and in a number of different species. They do not remove the 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™ Koi.

### Use of Viresco™ Koi in association with Chemicals and UV lights.

It is important not to use Viresco™ Koi in the presence of disinfecting 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 microbes in the filters will also make ineffective the microbes in Viresco™ Koi. Leave a long enough gap between disinfectant treatment and the application of Viresco™ Koi. Initially we recommended that UV lights should be turned off prior to application of Viresco™ Koi and kept off for 7 to 10 days. UV is a sterilant and might destroy bacteria present in Viresco™ Koi. However, evidence from some people has shown that UV's need not be turned-off when Viresco™ Koi is used.

VIRESCO™ KOI IS NOT A CHEMICAL  
IT IS A BIOLOGICAL PRODUCT CONTAINING MICRO-ORGANISMS.

VIRESCO™ KOI IS HARMLESS TO FISH, PETS, PEOPLE AND PLANTS.  
IT WAS INITIALLY FORMULATED FOR USE ON COMMERCIAL FISH FARMS

OVERDOSING WITH VIRESCO™ KOI CAUSES NO PROBLEMS

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