

## **GroGreen Pond Relief**

GroGreen Pond Relief is a high specification microbial product intended for the biodegradation of organic materials in a variety of enclosed or slow-moving water bodies. Such waste materials can include leaf litter, undigested fish food, fish faeces, bird and animal faeces. The bacteria in GroGreen Pond Relief are selected for their ability to function at low temperature and bind soluble nutrients that favour the development of filamentous fungi and potentially pathogen bacterial species. GroGreen Pond Relief contains only natural materials and is safe to use in ponds, lakes and even bathing areas.

### **Advantages:**

- 100% natural formulation
- Suitable for all fresh water and saltwater applications
- Suitable for use in ponds, lakes, lagoons, canals and bathing ponds
- Simultaneously encourages nitrification (surface) and denitrification (sediments)
- Safe to use with all ornamental and farmed fish
- Pet and human friendly
- Easy application; dosed from soluble sachets
- Ultimately biodegradable, no environmental impact
- Naturally biodegrades all organic waste materials found in aquatic environments
- Reduces or eliminates the growth of nuisance filamentous algal species
- Reduces eutrophication
- Reduces sediment levels that harbour pathogenic bacteria and viruses
- Improves function of biofilters

### **Product Characteristics:**

Targeted compounds    Organic waste material; filamentous algae  
Bacterial count     $5 \times 10^9$  cfu/g  
Bacterial type    Bacillus spore blend  
Effective pH range:    5.0-10.0  
Temperature range:    5-50°C

GroGreen Pond Relief is designed to treat the cause, not the effect, of pond maintenance problems. Excessive algae growth results from easily available food sources – normally excess nutrients in the water. GroGreen Pond Relief bacteria digest the excess nutrients before the algae, cutting off the algae's food supply and controlling algae growth. GroGreen Pond Relief will help to re-establish a healthy, balance aquatic ecosystem. GroGreen Pond Relief is non-toxic, non-corrosive, and all natural and will not harm animals, plants, birds, fish or humans.

### **GroGreen Pond Relief controls odour:**

The bacteria in GroGreen Pond Relief attack the cause of the pond odour, ammonia and slow decaying organic matter. By accelerating and stabilizing the natural nitrogen conversion reactions, GroGreen Pond Relief greatly reduces or eliminates the release of ambient ammonia. Rapid digestion of accumulated organic matter eliminates foul odour.

### **GroGreen Pond Relief clarifies water:**

GroGreen Pond Relief reduces the algae population and digests floating and suspended organic matter that clouds the water column. Bacterial cultures multiply utilising organic waste as the major carbon sources along with nitrogen and phosphorus. As nutrients are consumed by bacteria, the algae is starved, consequently algae diminishes, water becomes clearer and odours decrease.

**Expected results:**

- Within minutes of application, the water soluble PVA sachets dissolve releasing the product
- Within hours, the bacteria start to germinate and grow
- In 5 to 10 days algae should begin to breakdown
- Over 14 to 21 days algae will gradually disappear from the treated areas
- In 3 to 4 weeks after application the effect of Pond Relief will normally have peaked.

**Application Rate:**

For ponds of average depth < 1m:	Treatment:	200g/100m <sup>2</sup> every 30 days
	Maintenance:	30g/100m <sup>2</sup> every 45 days
For ponds of average depth > 1m:	Treatment:	300g/100m <sup>2</sup> every 30 days
	Maintenance:	50g/100m <sup>2</sup> every 45 days

(Application rate may require adjustment dependent upon circumstances. For example, in cases of high fish stocking density, water bird populations, seasonal agricultural run-off of fertilizer and pesticide residues).

**Timing of Application:**

- Water temperatures should ideally be above 10°C (with some activity at 8°C).
- As light levels increase, treatments normally commence in late spring
- Continue treatment monthly (or as required) until autumn

GroGreen Pond Relief is designed to be a preventive maintenance product. It is therefore advisable to start with a clean pond surface.

Remove existing algae by harvesting. This provides the additional benefit of removing nitrogen and phosphorous bound in the algae.

GroGreen Pond Relief bacteria preferentially use dissolved oxygen in their digestive processes. This will not, however, affect the dissolved oxygen concentration in a well-aerated pond. Aeration will enhance the effectiveness of GroGreen Pond Relief, as well as benefit all aquatic life present in the pond. It is recommended that all ponds without adequate dissolved oxygen levels be aerated. By digestion of free organics, the bacteria in GroGreen Pond Relief dramatically reduce the BOD (Biochemical Oxygen Demand). In aquatic systems, this means that more of the dissolved oxygen is available to fish life, as less is required for the oxidation of organics. Thus, GroGreen Pond Relief will enhance even an unaerated or poorly aerated pond.