

Pond Relief

TECHNICAL DESCRIPTION

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 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.

For further information see 'Pond Relief – FAQ's

APPLICATIONS

Pond Relief contains only natural materials and is safe to use in ponds, lakes, lagoons, canals and marinas.

Pond relief is safe to use in bathing areas, but should not be used in potable water sources. Pond Relief is also suitable for use in brackish or salt water

Suitable for aquaculture and mariculture applications (fin fish, shrimp) but consult Rumexo for alternative specialty products.

ADVANTAGES

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

PRODUCT CHARACTERISTICS

targeted compounds	Organic waste material; filamentous algae	
bacterial count	5x10 ⁹ cfu/g	
bacterial type	<i>Bacillus</i> spore blend	
formulation properties	4 species, plus organic biodegradable carrier,	
performance properties	effective pH range: 5.0-10.0	temperature range: 5-50°C
packaging	200g, 100g, 50g and 30g PVA sachets	
Shelf Life	24 months in an original unopened container	

STORAGE AND HANDLING

Store in a cool, dry place. Wash hands with soap and water after use.

APPLICATION GUIDELINES

Application rate:

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

Application timing:

- 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
- Timing of applications should take into account environmental factors (see below)

Product action:

- 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
- Improves water nutrient balance and enhances water quality

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.
- In some circumstances, product results vary dependent upon **Environmental factors** (see below)

Best practice:

- Prior to treatment, ensure that where possible:
 - algae to be controlled are predominantly filamentous types
 - water temperature is >10°C
 - water has a pH between 5.5 and 8.5
- Where algae regularly forms on yearly basis, apply prior to expected outbreak

- Aerate water by some means (waterfall, fountain) to introduce oxygen and create some water movement
- Where algae covers only part of pond apply Pond Relief to this area only (+2m margin)

Environmental factors:

Pond Relief has a biological activity, therefore certain environmental factors will cause some variation in the outcome of the product. These factors include:

- Water nutrient levels: Algae growth will increase with increased available nutrient concentrations, which in turn will be influenced by:
 - Nutrient levels in the water source (including fish and water fowl waste)
 - Fertiliser applications on surrounding land
 - Rainfall and surface run-off into the pond
- Light and temperature: Although often related, both daylight levels and water temperatures will influence the vigour of algae growth by:
 - Longer day lengths, which provide more growth opportunity
 - Water surface temperature, influenced by sunlight
 - Temperature of water, from either surface or underground sources
- Water flow:
The movement of water will affect the ability of the microbial population to function effectively due to:
 - Oxygen supplied by aeration, which is required by microbes to reproduce
 - Water current, which if fast flowing can diminish the microbial population

CASE STUDY

Langley Priory, Derbyshire, UK, summer 2015.

Severe algal bloom in small lake of approx. surface area roughly 4000m². Treatment programme required the use of 40 sachets (4Kg) of Pond Relief over a 4 week period. Result was a 90% reduction in surface algae.



15 July, 2015



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