

Pond Relief

FREQUENTLY ASKED QUESTIONS

How does Pond Relief work?

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. Pond Relief bacteria digest the excess nutrients before the algae, cutting off the algae's food supply and controlling algae growth.

Will Pond Relief harm turf?

No Pond Relief actually enhances turf health in the following ways:

- a. The microbes used in Pond Relief are natural soil and water bacteria that are an essential part of the mechanism for the efficient transport of nutrients from the soil into the turf roots.
- b. Pond Relief also improves the water quality of irrigation ponds by breaking down ammonia salts and other contaminants before they reach the turf. Common sense indicates that better water contributes to better turf.

Is Pond Relief safe for fish?

Yes. By removing ammonia and nitrite from the water, Pond Relief enhances the aquatic environment for fish and other wildlife. The Pond Relief formulation is also used to enhance production in commercial fish, alligator and shrimp farms in Japan, Thailand, France, Canada and the United States – so we are OK with ornamental freshwater fish and other aquatic life found in Europe

How does Pond Relief control odour?

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

How does Pond Relief clarify water?

Pond Relief reduces the algae population and digests floating and suspended organic matter that clouds the water column.

Will Pond Relief clear a pond of existing algae?

Yes, however, Pond Relief mode of action is to "starve" the algae by out-competing for a primary nutrients, nitrogen and phosphorous. Therefore, it is most effective when used as a preventive maintenance program, before algae start blooming.

What do I do if I have an existing algae problem?

Pond Relief is designed to be a preventive maintenance product. It is therefore advisable to start with a clean pond surface. This can be accomplished in the following ways:

- a. Remove existing algae by harvesting. This provides the additional benefit of removing nitrogen and phosphorous bound in the algae.
- b. Treat the pond with an approved algaecide. Great in the short term, but has many drawbacks for long-term effectiveness. Reduces beneficial micro-organisms in the water and in the bottom sludge. Upsets the natural balance of the aquatic ecosystem. **Wait 7 days** after the addition of an algaecide before using Pond Relief.
- c. It is important to note that certain species of blue-green algae have adapted to fix nitrogen from the atmosphere. Although this species can survive in nitrogen-depleted environments, they are only a small portion of the total natural algae population. And even though not effective against these species, Pond Relief will still cause a reduction in filamentous and other algae, digest organics and reduce bottom sludge and odour.

Is Pond Relief compatible with algaecides or pesticides?

Yes and No! Algaecides work well in the short term, but kill the natural algae and many useful bacteria in the pond that handle excess nutrient. As algaecides reduce the populations of beneficial bacteria, fewer nutrients are being digested and the potential for long-term algae problems increases. In cases of damage caused by algaecides, apply a double dose of Pond Relief and then use as normal to re-establish a useful water cleansing biomass.

How do algaecides cause long-term problems?

Nature regulates nutrient levels in ponds with bacteria similar to those found in Pond Relief. Continual use of algaecides will kill these beneficial bacteria, and over time the pond will lose its ability to self-regulate nutrient levels. The result is an out-of-balance ecosystem whose nutrients will support a large algae population. This can be compared to the increase in turf thatch and disease caused by the use of pesticides and fungicides. As with algaecides, pesticides and fungicides also kill the bacteria that are essential to healthy turf, and their continual use may cause greater long-term turf problems.

Is Pond Relief an algaecide?

No, Pond Relief is designed to digest the algae's primary growth nutrient, nitrogen. It will not kill living macro-organisms. Pond Relief will help to re-establish a healthy, balance aquatic ecosystem. Pond Relief is non-toxic, non-corrosive, and all natural and will not harm animals, plants, birds, fish or humans.

What about aeration?

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 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 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, Pond Relief will enhance even an unaerated or poorly aerated pond.

Will Pond Relief work within the pond bottom and sludge layer?

Yes. some of the bacterial strains used in Pond Relief can 'respire' using alternative oxidisers to oxygen. This allows them to function at low DO (dissolved oxygen), such as you would find in sediments. These bacteria are actually good to have in sediments since sediments are the greatest source of nutrient 'leakage' into water. The bacteria in Pond Plus readily utilise these nutrient sources to reduce this leakage that would otherwise fuel algal development at the surface. Two important factors in most small ponds:

- a. As organic matter (leaves, grass clippings, etc.) degrades on the pond bottom, nitrogen and phosphorus are realized to the water.
- b. The bacterial populations in the sludge layer can be damaged by applied algaecides and pesticides flushed into the pond during rainstorms. Pond Relief will repopulate the sludge layer and accelerate the degradation process. This not only reduces the sludge layer volume but will also reduce the release of nutrients. It is important to note here that the copper used in algaecides and herbicides accumulates in bottom sludge causing an ever-increasing toxicity problem for natural micro-organisms.

Are any permits or applicator's licenses necessary?

No, because Pond Relief is not regulated under FIFRA. No permit or applicator's license is required.

How is Pond Relief used?

Pond Relief is a pond management program, not a one time, quick-fix chemical addition. As such, it usually requires an initial high dose at spring time followed by a lower maintenance dose during the summer months. Maintenance may be reduced during a poor (sunlight) summer or increased into a warm sunny Autumn.

What is the purpose of the maintenance dose?

Since Pond Relief is designed to be a preventative maintenance product, the weekly/monthly doses ensure that the levels of beneficial bacteria remain sufficient to handle nutrient inflows. One must also remember that water outflow, irrigation, leaching and inter-species competition with less desirable bacteria, reduces Pond Reliefs bacteria numbers.

Are initial and Maintenance doses always the same?

No. Because each pond has a unique set of characteristics that will impact the action of the bacteria, the length of time to achieve the desire results will vary from pond to pond. Remember, Pond Relief is not a quick-fix to pond management problems; rather it is preventative maintenance program that will yield excellent results if followed diligently.

Any given pond will behave differently year to year dependent upon a variety of environmental factors.