

Algae Aid

Algaecide

Algae control for turf, ornamentals and general areas



Product Overview

Algae Aid Algaecide is a turf, ornamental and general-purpose algaecide containing 142.5g/L Quaternary Ammonium Compound.

It is registered for the control of algae (cyanobacteria) and mould in golf course, bowling greens and sports turf areas, as well as on hard surfaces such as golf courses and nursery greenhouse floors.

Algae Aid is a biodegradable, completely water soluble and a low burn algaecide. Used as directed, the residues of this product are biodegraded by normal soil micro-organism populations efficiently in the soil environment.

Key Features

- > Strong activity on algae and cyanobacteria. Will control algae effectively and efficiently.
- > Chlorine free formulation. Low burn potential.
- > Environmentally safe, biodegradable and completely water soluble.
- > Non-corrosive to equipment, structures, growing areas and most importantly is not harmful to plants when applied at recommended rates.
- > Reduces reliance and overuse of fungicidal based products for algae control in turf.
- > APVMA approved product – credible formulation & proven activity.
- > Also safe for use on Synthetic grass surfaces.



Mode of Action of Algae Aid

Quaternary Ammonium Compound (QAC), the active ingredient in Algae Aid works primarily by membrane disruption. QAC does this due to its strong positive charge. Algae, mould, and bacteria possess a negative charge. QAC binds and attaches to the algae, mould or bacteria and causes the cytoplasmic membrane to leak, creating so much damage to the cells that eventually the algae, mould or bacteria die.



Algae Aid – Use Rates & Label Recommendations

SITUATION	PROBLEM CONTROLLED	RATE	HOW TO APPLY
Golf course and bowling greens, bunkers and sports turf areas	Algae (Cyanobacteria) and Mould	1L per 100L of water	Spray onto affected area and allow to dry. *Apply in a minimum of 500L of water per hectare (5L/100m ²). Re-apply at 10-day intervals where required.
General use		30mL per 5L water	Do not rinse treated surfaces.
Walls and floors: tiles, concrete and fibro Pathways		1L-2L per 100L water depending on level of soiling	Use after pre-cleaning treatment
Therapeutic and Spa Pools	Algae	Initial Treatment: 200mL per 10,000L of water Preventative Maintenance (weekly to monthly): 200mL per 10,000L of water	Use in conjunction with Chlorine Treatment.
Swimming Pools		Summer dosages per 10,000L of water: <u>Initial:</u> 250mL <u>Weekly to Monthly:</u> 170mL Monthly Winter Dose or Heavy Algae Control: 600mL	

Turf: Whenever possible, rough up or scratch up the algae mat with rakes, drag brushes or similar tools prior to treatment.

Nursery Production: Before using quaternary ammonium compounds, pre-clean all surfaces. Contact with any type of organic matter inactivates the chemistry. Surfaces should remain thoroughly wet for at least 10 minutes. A fresh solution should be applied daily or when the solution becomes visibly dirty.

Algae Management in Turf

Algae that cause algae crust problems in turf are not the typical aquatic algal species found in streams and lakes. They are cyanobacteria (blue green)—terrestrial organisms that can survive in aquatic and also in “near aquatic” habitats on land. Cyanobacteria synthesize and secrete large quantities of polysaccharides from their cells. This protective coating enables them to withstand stress brought about by lack of water and high temperatures. Cyanobacteria species commonly observed in turf are Oscillatoria, Phormidium and Lynbya.

Key growth requirements for algae (Cyanobacteria) are as follows:

- > Wet soil environments
- > Compacted, poorly drained soils
- > Warm summer temperatures
- > Ample supplies of Phosphorus and Nitrogen. Phosphorus, especially, promotes rapid growth and the formation of surface crusts by cyanobacteria

Growth of filamentous cyanobacteria may be so rapid that the filamentous layers of slime out-compete turfgrass growth during the hot summer months. The first appearance of Cyanobacteria growth on greens typically occurs during the summer months as a dark slime on the surface of the green. Initially these spots may be difficult to observe, but as they get larger the turf begins to yellow and thin due to a lack of oxygen and drainage under the crust (which resembles a microscopically interwoven mat). It has been reported that Cyanobacteria release toxins that stifle plant growth competition around it.

Algae Management in Nursery Production

Algae is found in nearly every greenhouse, nursery and sometimes even landscapes where ornamental plants are produced. Algae grows wherever we have supplied it with excess water and nutrients. It can be found on pots, potting media surfaces, soil, benches, walkways and even all over plant leaves and stems. Algae are a nuisance due to worker health risk (slipping), becomes a challenge to plant nutrition as they utilise water and fertiliser meant for plant growth, and an irrigation issue because a dense algal mat can make water penetration very difficult to achieve. They are reported to be used as a food source for some insect pests including fungus gnats.

Algae in the General Environment

Algae are a diverse group of organisms. They can grow in virtually any environment that has carbon dioxide, sunlight, minerals, and enough water. The limiting factor in algae growth is often sunlight or minerals. When sunlight is limited, some kinds of algae have the ability to take in organic substances, like plant matter and utilize it as a food source. As a result of this, algal species are very common in the general environment and control maybe required in pools, spa's and therapeutic pools, in Street scapes and public areas, piggeries, hatcheries and dairies or on walls, floors, tiles, hard surfaces including concrete and pathways. The 'Quaternary Ammonium' technology in Algae Aid is versatile, easy to use, effective, non-persistent and possesses santiser like activity that fits well into these situations.