

## Selective algae control for turf and ornamentals

#### Product overview

Algaefix® is a selective turf and ornamental algaecide containing 142.5 g/L Quaternary Ammonium Compound. It is registered for the control of algae and mould in golf course, bowling greens and sportsturf areas, as well as on hard surfaces such as pathways and nursery greenhouse floors. Algaefix® is an environmentally safe, biodegradable, completely water soluble and non-phytotoxic algaecide. Used as directed, the pesticidal residues of this product are biodegraded by normal soil microorganism populations.

### Mode of action

Quaternary Ammonium Compound (QAC), the active ingredient in Algaefix® 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 in turf management

Algae are primitive green plants. They can be a problem in turfgrass when surface conditions are overly wet. They tend to occur in low, shaded, or compacted areas. Algae form a greenish to black scum on the soil or in thin turf. As this blackish scum dries, it appears as a crust that later cracks.

Turfgrass plants may become chlorotic (yellowed), weak, and eventually die as a result of Algae competition.

# Culturally, algal scums can be managed in turf by employing the following methods

- Improving surface and subsurface drainage
- Avoiding frequent irrigation, especially at night
- Aerification of compacted areas
- Maintaining proper pH and nutritional levels
- Increasing mowing height where possible and practical
- Improving light penetration to the turf sward
- Using more shade tolerant grasses where shade is the major cause of the problem.

## Algae in nursery production

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

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#### **Features**

- Unique mode of action
- Strong activity on algae
- Non chloride based formulation
- 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
- APVMA approved product.

#### **Benefits**

- Limited potential for resistance
- Will control algae effectively and efficiently
- Limited potential for burn, unlike other algaecides on the market
- Non-persistent in the environment
- Easy to use
- Safe for use in nursery production situations on a range of plant species
- Credible formulation and proven activity.

#### Use rates

#### 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.

## **Application**

Situation	Pests controlled	Rate	Application
Golf course and bowling greens, bunkers and sports turf areas	Algae and Mould	1 L per 100 L of water	Spray onto affected area and allow to dry. *Apply in a minimum of 500 L of water per hectare. Re-apply at 10 day intervals where required
General use		30 mL per 5 L water	DO NOT rinse treated surfaces
Walls and Floors, tiles and concrete pathways		1 L - 2 L per 100 L water depending on level of soiling	Use after pre-cleaning treatment



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