

The Number One For Sustainable Growing

What to do in case of algae?

Description:

Like all plants, algae convert carbon dioxide (CO₂) and water with the addition of sunlight into carbohydrates and oxygen through photosynthesis. The light is caught by pigment, of which the green chlorophyll is the best known one. In addition, algae also need nutrients, such as nitrate and phosphate. Using carbohydrates, these inorganic elements are converted to organic substances, such as proteins and fats.

The major part of an algae consists of the elements hydrogen (H) and oxygen (O), from the water (H₂O) in the cell. After that, carbon (C) and nitrogen (N) are the most common. Both are used to make carbohydrates and proteins that are essential for the structure of a cell. Phosphorus (P) often only occurs in small quantities. However, that element is also essential for the operation of the cell. In addition, certain trace elements such as the iron, copper and magnesium are important for algae to grow.

Most algae increase in number by cell division. The daughter cells are a clone of the mother cell. Growth of algae does not mean that cells grow larger, but the number of cells increases.

Green algae have chlorophyll as the main pigment, which makes the cells strongly greenish. In addition to chlorophyll, blue algae have a blue pigment that absorbs light. Blue algae are actually no microscopic plants but bacteria. Unlike plant cells, blue algae and other bacteria do not have a nucleus. Therefore, they are officially called cyanobacteria. Cyan refers to their blue-green color.

The availability of nutrients, such as nitrate and phosphate, determines where algae can grow.



Symptoms:

Green slime growing on the surface or sides of soil.

Algae is a simple plant organism. When given the proper conditions, it may be found growing on the surface of the growing soil. Algae appears as a green slime covering the soil. By itself, algae is not dangerous to plant life, but may inhibit the absorption of water, depending on the watering method you are using.

Associated problems:

If algae is allowed to dry out, it can actually create a seal on the surface of the soil which may reduce the availability of oxygen and/or inhibit the soil's ability to absorb water.

Once algae growth has started, it's difficult to stop it without under-watering your plant

Algae can bring insect diseases. Fungus gnats and shore flies are lovers of such environment. These not only cause general nuisance when they are in adult flying stage but also could cause serious root damages when they are in larvae stage.

Prevention:

Prevent from overwatering: This number one cause does not apply for Eazy Plug material, as it self-regulates to the right air-to-water ratio. However for regular potting soil, the key to prevent the growth of Algae on the surface is to make sure your plant is receiving the proper amount of water. Keep in mind that proper watering is not simply a factor of quantity and frequency. It is also a factor of how much water your potting soil holds relative to the amount of water your plant is able to absorb. If the soil holds more water than your plant can absorb, it may be the result of an over-watering program combined with inadequate drainage.

If weather is humid (wet season) try to use a potting mix that is light and porous (use coarser textures or mix with perlite). This too cannot be an issue for Eazy Plug material as the porosity of the Eazy Plug material is predetermined.



Unless your plants require a different pH value, try to use potting soil that has a pH between 5.8 and 6.2.(typical SAB substrate range). Eazy Plug has a pH of around 6.0.

To prevent the growth of Algae, the safest method is to simply cut off its supply of light. Most type of Algae need a lot of sunlight. By shading the area around the medium (though not the plant), you will cut off supply of light that Algae needs to thrive. As the stabilized Eazy Block and Eazy Pyramid are best used without plastic sleeve, they make optimal use of the air pruning effect but are also likely to have more exposure to light.

Treatment:

Here are some home made recipes that could be tried when avoiding chemicals.

Please Use These Suggestions With Caution And Always Test Before Applying On Larger Scale. Results can differ depending on water hardness and soil characteristics.

Water with light chamomile tea.

Mix 1 part peroxide with 10 parts water and spray lightly onto algae. One can also add a small amount of this mixture regularly to the nutritional water. The roots get an oxygen boost and algal growth will be inhibited. Look out for young plants because young root systems can be damaged by the hydrogen peroxide.

Spray algae with a solution of 2-3 tea spoons baking soda mixed with 1 liter water.

For larger surfaces, try to use chemical Algaecides. However that usage must be carefully monitored especially when edible plants are grown (vegetables).

