In the fresh water aquariums plants use CO2 to grow throughout the day during a process called photosynthesis. The process of photosynthesis in plants also requires light, CO2 and water. Light levels and quality are very important in plant growth and a seneye reef device will help measure these.

CO2 is a gas dissolved in the aquarium water and it makes water more acidic (like fizzy drinks), when plants have no light CO2 starts to build up and lower pH.

Aquarists add CO2 to the fresh water aquarium to accelerate plant growth. Plants can use more CO2 than is available in the atmosphere. However, care should be taken to control how much carbon dioxide is present to prevent pH swings or in extreme cases pH crashes. At night when there is no lighting on the aquarium CO2 dosing should be off.

A heavily planted tank will show a natural pH cycle that is linked to the lighting period in the aquarium and photosynthetic activity. The pH will usually be lowest in the morning and highest in the evening. If the change is greater than a pH change of 0.5 then you may wish to look at the KH system. A higher KH can actually help hold CO2 in the water without seeing pH slip. A seneye device will allow you to see pH cycles over the day and week.

In marine aquariums CO2 is occasionally used in calcium reactors where the acidification of salt water makes it dissolve crushed coral and release calcium back into the system. Care should be taken with flow rates to ensure that acidic water does not enter back into the aquarium. An oxygen reactor is sometimes used to prevent this.