Enhance Water Quality with UV Sterilizers

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Most hobbyists typically employ mechanical, chemical and biological filtration. However, hobbyists experiencing persistent outbreaks of green-water algae blooms or disease may benefit from the addition of ultraviolet (UV) sterilizers. They are the perfect companion to conventional filtration units.

Why UV?

UV sterilizers provide unique benefits that cannot be achieved through conventional filtration methods. By employing special lamps that emit UV-C light with germicidal properties, UV sterilizers effectively kill waterborne algae and microorganisms. At a peak lethal wavelength of 254nm, UV-C light irradiates free-floating algae and pathogens at a cellular level. UV sterilizers alter the genetic material of target organisms and shorten their normal life cycle by disrupting their ability to grow and reproduce.

Adjust Flow Rate to Achieve Different Goals

UV sterilizers can be used to control a variety of microorganisms including viruses, bacteria, algae, and protozoa. However, for effective control, UV exposure (dwell time) must be adjusted based on the organism you wish to target. Larger organisms such as protozoa require greater exposure to UV-C radiation than smaller organisms. Fortunately, controlling UV exposure is as simple as adjusting the rate water flows through the sterilizer.

Maintain Effective UV Sterilization

In addition to proper flow rate, water clarity and bulb age are two common factors that compromise effective UV sterilization. Excessively dirty or turbid aquarium water reduces UV light penetration and decreases overall effectiveness of the unit. Therefore it is essential to use UV sterilizers in conjunction with your primary filtration system. Also, light emitted by UV bulbs degrades over time. Older UV bulbs may decrease in efficiency by as much as 40%! Replace bulbs every 8,000-12,000 hours, or sooner based on manufacturer recommendations, to enjoy optimum performance of your UV sterilizer.

Q Are UV sterilizers good replacements for conventional filtration units?

A. Ultraviolet sterilizers are supplemental equipment used in conjunction with your primary filtration system. By adjusting the flow rate, UV sterilizers offer unique benefits ranging from water clarification to effective management of various water-borne microorganisms including free-floating algae.

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