

Foibles, Brambles, and Conundrums – Cyanobacteria

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Understanding cyanobacteria ecology, bloom dynamics, and their toxins is key to mitigating these troublesome odor, taste, and sometimes toxic organisms. PAK™27 algaecide is approved for use as an algaestat or algaecide for the selective control of blue-green algae in ponds, lakes, and drinking water reservoirs. It is a granular addition compound of sodium carbonate (Na₂CO₃) and hydrogen peroxide (H₂O₂). This environmentally sound compound is not persistent and is nontoxic to the ecosystem at recommended dosage. Applications of various other algaecides to dense algal blooms may cause oxygen depletion that can result in fish kills. PAK™27 is not likely to cause oxygen depletion as it selectively removes blue-green algae, leaving green algae, diatoms, and other desirable algal forms intact. It initially adds oxygen to the system and the beneficial chlorophyll *a* oxygenators are retained in the water column producing oxygen to support fish and obligate aquatic organisms. Noxious sulfur compounds are oxidized by PAK™27 and it has been shown to reduce the taste and odor contaminants, geosmin and 2-methylisoborneol. Blue-green algae toxins should be readily oxidizable but no definitive studies have been done. The toxins of blue-green algae can best be minimized by using PAK™27 as an algaestat to “prune the bloom” before it becomes problematic. The Case Study in Bradenton, FL shows the efficacy data. PAK™27 is the ideal, environmentally sound, selective blue-green algaecide.