

Traditional chemical cleaners used in irrigation systems pose significant challenges:

Toxicity:



They can be harmful to **humans, animals, and the environment.**

Corrosion:



They can **damage irrigation infrastructure** due to their caustic nature.

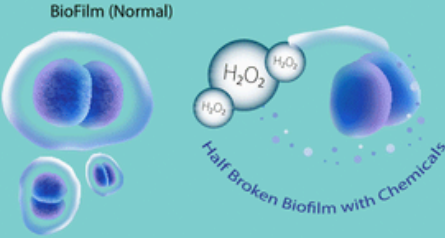
Ineffectiveness:



They often fail to fully remove biofilms and mineral scale, leading to **recurring blockages.**

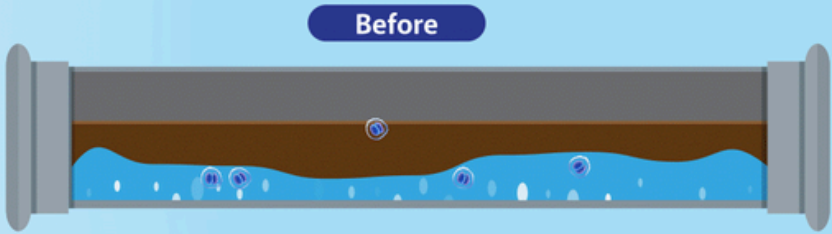
Biofilm's Biological Origin:

Biofilms are formed by microorganisms as a **defensive** strategy, serving as their protective structure. Chemical cleansers, such as hydrogen peroxide, function by destroying these microbes. Nevertheless, **they do not eradicate all species**, and the remaining ones can promptly regenerate biofilms, resulting in a swift return of the problem.



AQUAMATE®'s

Unique Mechanism



Unlike chemical cleaners, AquaMate® doesn't kill microorganisms. Instead, it destroys the **biofilm structure**, creating an environment where they cannot survive. This results in a complete clean and prevents the accumulation of minerals and fertilizers, as they have no biofilm to adhere to. AquaMate®'s unique repeating mechanism makes it a **highly efficient and cost-effective** solution for growers.



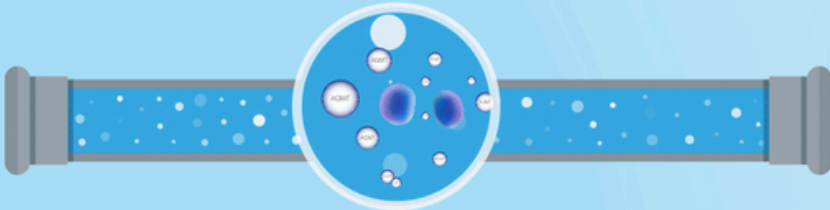
AQUAMATE®'s

Innovative Solution:

AquaMate® offers a sustainable and effective alternative to chemical

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1. Biofilm Removal:



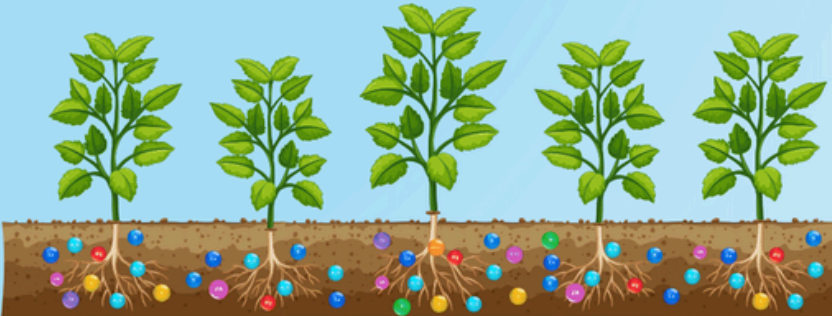
AQUAMATE®'s organocatalysts break down the polysaccharide links in biofilms, **preventing blockages** and improving water flow.

2. Scale Prevention:



It **prevents the buildup of mineral scale** from iron, calcium, and other elements, ensuring consistent irrigation performance.

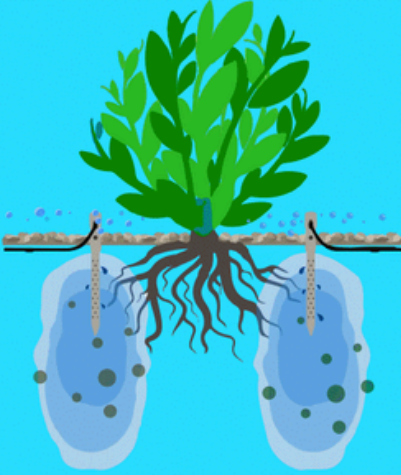
3. Increased Water and Nutrient Efficiency:



By enhancing water penetration and distribution in soils, AQUAMATE® maximizes the utilization of **water and nutrients**, leading to healthier plants and increased yields.

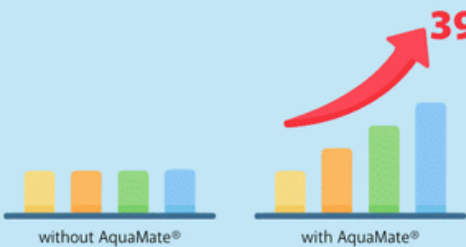
How AquaMate® Works:

- Microbubble Formation:** AquaMate® creates **ultra-fine microbubbles** in the irrigation water.
- Catalytic Breakdown:** These microbubbles initiate a catalytic reaction that **breaks down the polysaccharide linkages** in biofilms.



- Mineral Scale Prevention:** By removing biofilms, AquaMate® **prevents the adhesion of minerals**, preventing scale formation.
- Enhanced Oxygen Transfer:** The microbubbles **increase dissolved oxygen** levels in the water, promoting a healthier root environment.

The AquaMate® Advantage:



- Increased Yields:** Studies have shown that AquaMate® can **increase crop yields by up to 39%** due to improved water and nutrient use efficiency.
- Water Savings:** AquaMate® can **save up to 0.75 megaliters** of water per growing season, contributing to sustainable water management.
- Cost-Effective:** By reducing the need for frequent cleaning and maintenance, AquaMate® **lowers** operational costs for growers.
- Environmentally Responsible:** AQUAMATE®'s **non-toxic and biodegradable** formula aligns with sustainable agricultural practices.