

Irrigation System Cleaner & Water Conditioner



- ✓ Removes bio-film
- ✓ Increases Water Use Efficiency (WUE)
- ✓ Prevents the build up of scale from iron & calcium
- ✓ Increases dissolved oxygen of water & aerates soils/medium
- ✓ Completely safe for people, plants, soils and animals
- ✓ Non corrosive, non hazardous to irrigation systems



National Distributor



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THE IMPORTANCE OF SUSTAINABLE IRRIGATION



'With agriculture responsible for 70 per cent of all freshwater withdrawals, efficient and sustainable water & soil use is essential for this and future generations'. ...'Irrigation provides approximately 40 percent of the world's food, (from an estimated 310 million hectares worldwide)'.

THE THREE PROBLEMS

1. Blocked irrigation filters, lines, drippers, sprinklers

Blocked drippers are caused by bacterial bio-film/slime that create a growing crossed-linked matrix which acts like a filter. This traps & results in a build up of minerals (scale), algae and or fertilisers.

2. Poor water & nutrients penetration, soil distribution

Poor water penetration (runoff), water channelling or lack of vertical & lateral distribution creates both poor water & nutrient use efficiency in crop production.

3. Poor options to fix these problems

In the past there have only been dangerous chemicals as options to manage irrigation blockages from bio-film/slime & mineral/scale build up. While poor water penetration & distribution was just accepted.

YOUR SOLUTION

AquaMate® is a novel liquid using Patented organocatalyst's complex that initiates a catalytic breakdown of the bio-films/slime (polysaccharide links), in your irrigation system. Removing blockages and preventing mineral scale from (iron, calcium, magnesium, sodium) while improving water penetration & distribution in soils/mediums for greater water use efficiency (WUE), & nutrient use efficiency (NUE).

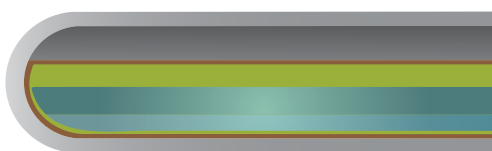
It is totally safe for you, your family & staff, plants, animals and reduces cleaning and maintenance costs.

AquaMate® provides a comprehensive and ecological solution for:

Primary Benefits	Secondary Benefits
<ul style="list-style-type: none"> Cleaning and maintenance of irrigation lines and systems (removing biofilm, preventing scaling) 	<ul style="list-style-type: none"> Improves soil aerobic microbe activity (nutrient cycling, soil formation, pathogen suppression)
<ul style="list-style-type: none"> Increases aeration of water & soils (dissolved oxygen) 	<ul style="list-style-type: none"> Supports optimum plant growth, through improving the nutrient and water uptake
<ul style="list-style-type: none"> Improves water penetration and dispersion in soils. 	<ul style="list-style-type: none"> AquaMate® treatment affects the transport of sugars from source to sink organs, resulting in healthier plants, higher yield potential and greater resilience to heat and water stress.

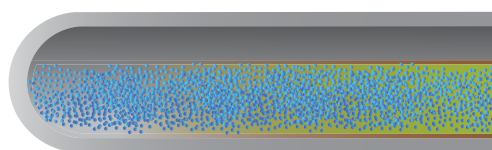
How AquaMate® Works

AquaMate® keeps irrigation filters lines and emitters free flowing and clear of mineralization and biological film formation.



Bacteria forms inside irrigation lines due to organics (fertilisers, recycled water) in the water.

A layer of biological film builds up over the bacteria. This biological film build up causes blockages in lines & emitters.



AquaMate®, through the formation of ultra fine microbubbles, initiates an immediate catalytic breakdown of the polysaccharide linkages, which bacteria have secreted for adhesion to surfaces



As a result removes the glue and therefore the ability for minerals - (iron, calcium, magnesium, sodium), fertilisers and or algae to form or build up throughout your irrigation system.

AquaMate® maintains free flowing lines, clear emitters, and higher oxygen transfer within the irrigation system.

IMPROVED EFFICIENCY & ECONOMICS FOR GROWERS

Organocatalyst's are not enzymes, though they may perform a similar role but are not limited by environmental conditions as enzymes are (pH, DO, EC & Temperature) and keep undertaking their action over and over again.

Unlike chemical cleaning options, AquaMate® is **not** diluted as it cleans your irrigation system from filter to the end of the lines. The rate you apply at the injection point will be the same at the end of the lines, regardless of the amount of biofilm or scale, making AquaMate® an efficient and improved economic option for growers.

AquaMate® is delivered at very high dilutions through any type of watering system, including hydroponics, pivots laterals, sprinkler and drip irrigation systems.



ECOLOGICAL REMEDIATION FOR OPTIMUM PLANT HEALTH

AquaMate® has the ability to facilitate a more aerobic, and therefore healthy ecological environment in soils/mediums and plants, through the reactions of our specially prepared organocatalytic formulation. Aerobic soils are able to optimize the solubility of nutrients within the soil so that they are released and absorbed by the roots in a more efficient manner.

This ability produces greater root growth, and an ability to enhance fertiliser uptake, as nutrients are more efficiently transported by the plants.

AquaMate® offers a new ecological model for the irrigation and soil/medium conditions that provide maximum yield potential. The organic linkage of soil, water, oxygen and microbes, provides the most efficient transfer of plant necessities to crop production goals.



Scan the QR to watch a video showing and explaining the cleaning process and the secondary benefits AquaMate® offers your irrigation system and overall farm production



Scan this QR code for AquaMate® application rates and product SDS



THE FUTURE OF ECOLOGICAL, SUSTAINABLE IRRIGATION

The University of California Davis - Department of Enology and Vinology has recently concluded a three-year study showing that treatment with AquaMate®, in addition to keeping irrigation lines clear of biofilm & scale, also improves carbon transport, accelerates plant metabolism, improves growth and increases yields



Initial irrigation line cleaning:

Factor	Pressure	Distribution Uniformity
Pre-cleaning	22 b	0.70 b
Post-cleaning	28 a	0.95 a (A value of >0.80 or 80% is considered above average.)



Yields

↑ 39%

Average Increase Per Season in Yield Over 2 Seasons.



Water use efficiency (WUE)

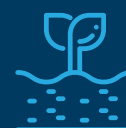
↓ 0.75 ML

Over a growing season 0.75 mega litres of water savings and potential energy savings were achieved using AquaMate®.



Nutrient use efficiency (NUE)

Applied fertiliser & soil nutrient uptake (Nitrogen, Potassium, Calcium and Magnesium) increased linearly with the increase in AquaMate® application. Year-over-year, repeatable results were seen with the 3 ppm application rate without detrimental effects on fruit composition.



Soil Biology

AquaMate® applications improved soil biology by 80% over the untreated.

Ingredients

Organocatalyst & Non-Ionic Surfactants. (Patent Number: AU 2013267982)

Application Rate:

3ppm (0.003ml / Litre)

Packaging:

4L, 20L & 1000L

Seal of Safety

Our commitment is to offer the highest human & bio-aquatic safety products on the market today. Our products are not only completely safe and non-toxic, non-caustic, non-corrosive, but offer a new model for green chemistry that improves the ecological health of ecosystems.

All Organocatalyst's products are produced in the United State and must meet the highest standards of quality.

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