

AquaMate® Removes The Extreme Case Of Bio-Film in Greenhouse



The bio-film collected from just one drip line.



Plants starting to wilt after only a short time of blocked drippers

Note: AquaMate® Concentrate (applied at 2 - 4ppm) was prediluted at 10:1 (applied at 20 - 40ppm) for ease of application for this grower.

CASE STUDY

Grower	Eden Farms
Agronomist	On farm
Location	QLD
Crop	Cucumbers

Demonstration Purpose

This greenhouse growing both large and small cucumbers were having continual problems with blocked drip lines and drippers from a fast forming bio-film. Their water source is good quality bore water that has been tested many times, they sterilise their system completely between crops with chlorine, use hydrogen peroxide for cleaning and sterilisation during crop growth, but still had continual blockages and production losses.

Demonstration Set Up

The demonstration was set up to treat one of the four greenhouses on one of the company's sites as a trial and control situation. AquaMate® application would be the only difference between the greenhouses, to the point that the application of hydrogen peroxide would continue for its sterilisation. It was decided to treat for a 1 month period and then review the trial. If there was seen to be improvement, keep applying and if not, cease the demonstration.

Application Date	Product Applied	Application Rate
First Month	AquaMate®	40ppm
Continued Application	AquaMate®	30ppm

Demonstration Results

After the first month of the demonstration it was concluded from greenhouse management and staff that **AquaMate®** had made an improvement, but did not eliminate the bio-film as hoped. However the demonstration would continue for another 2 months and then be reviewed again. The 2 month period was decided as the length of the additional demonstration based on the bio-film being significant and that as the greenhouse only irrigate/fertigation for a 4-5 min period every 45 minutes during daylight hours. These short irrigations didn't allow AquaMate® the time frame per irrigation to eliminate the bio-film, so the time had to come from continual weeks and months of application.

As an ideal and rapid reduction of such bio-film and irrigation issues, an irrigation for 4-5 hours with AquaMate® is the typical solution.

After the 2 months of application of **AquaMate®** the bio-film was almost eliminated with minimum issue that is easily managed during peak summer periods. As a result the farm then started treating all 4 greenhouses on this site and again after a 2-3 month period saw significant improvement in the decrease of bio-film. The farm now treat all 16 greenhouse across 3 sites through dosing directly into the large water tank storages. Another advantage of AquaMate is it easy mixing and compatibility with all fertilisers applied in A and B fertiliser tank mixes.



Happy growers after no more blockages

Conclusion

This demonstration has shown again the ability of **AquaMate®** to remove even the extreme cases of bio-film and scale from irrigation systems. It has also shown that under the the most difficult situations due to the amount of bio-film with only short irrigations, AquaMate® was able to, over time control the bio-film to create a much healthier, consistent crop. The growers have now been using AquaMate now for just over 2 years with great success.

About Advanced Nutrients

Advanced Nutrients is a leader in the development of innovative, environmentally benign fertilisers which cost less and deliver more. For the last 22 years, smart agricultural, horticultural and livestock producers throughout Australia, Africa, Asia and the Middle East have been using our products to cut input costs, boost returns and reduce farming costs.



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