

AQUASTICKER

Treatment Enhancing Catalyst

AquaSticker is a biological sticking agent that disrupts the protective microbiota of algae and aquatic plants. This product is the latest innovation in aquatic biocatalyst technologies. AquaSticker stimulates competitive bacterial growth and encourages algae and aquatic plants to naturally uptake chemicals.

This versatile technology boosts herbicide and algaecide performance in a variety of applications. It excels in hard water treatments and can be applied as a tablet or liquid as needed. AquaSticker blends well with most chemistries and biologicals including PondZilla and Water Column Clarifier.

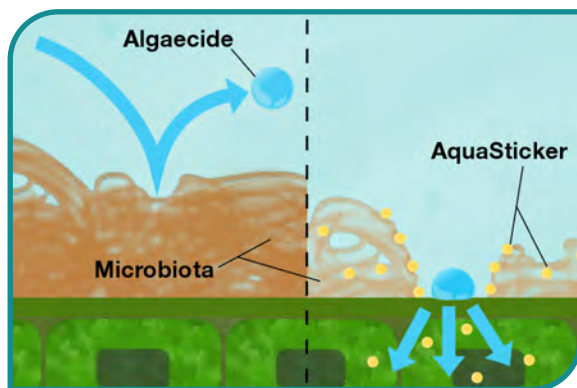


Diagram shows how AquaSticker stimulates competitive bacterial growth, disrupting the protective microbiota to improve algaecide contact and penetration.

KEY BENEFITS & HIGHLIGHTS

- Disrupts protective microbiota on aquatic plants and algae
- Stimulates competitive bacterial growth
- Encourages plants to naturally uptake chemicals
- Improves algaecide and herbicide response time
- Enhance adhesion and contact to boost probiotic performance
- Safe for environment and applicator
- Aids in hard water applications

Effects of AquaSticker on Flumioxazin Efficacy

Dr. Charles Webber, 2019

STUDY SUMMARY

- Duckweed samples were treated, comparing the performance of Clipper® alone with Clipper + three Naturalake Biosciences adjuvants and an untreated control
- At 7 days after treatment, duckweed treated with AquaSticker + Clipper was controlled an average of 95%, while Clipper alone controlled an average of 75%
- At 10 days after treatment, duckweed regrowth had begun in one of the samples treated with just Clipper, while all samples treated with AquaSticker+Clipper were free of regrowth
- At 12 days after treatment, the only samples without any regrowth were those treated with Clipper plus 1 ppm of PondZilla
- In general, the addition of Naturalake Biosciences' biocatalysts increased duckweed control compared to Clipper without adjuvants (TRT#10) at 5 DAT, with corresponding difference in discoloration

HEALTHY DUCKWEED



DEAD DUCKWEED



1 Day After Treatment		Adjuvant	% Controlled (Rep.)			
Herbicide & Rate	Adjuvant	Rate (ppm)	#1	#2	#3	Avg.
Clipper 8 oz/a	AquaSticker	1	0	0	0	0.0
Clipper 8 oz/a	AquaSticker	3	0	0	0	0.0
Clipper 8 oz/a	AquaSticker	6	0	0	0	0.0
Clipper 8 oz/a	None	0	0	0	0	0.0
Control	None	0	0	0	0	0.0

7 Days After Treatment		Adjuvant	% Controlled (Rep.)			
Herbicide & Rate	Adjuvant	Rate (ppm)	#1	#2	#3	Avg.
Clipper 8 oz/a	AquaSticker	1	95	95	95	95.0
Clipper 8 oz/a	AquaSticker	3	95	95	95	95.0
Clipper 8 oz/a	AquaSticker	6	95	95	90	93.3
Clipper 8 oz/a	None	0	75	75	75	75.0
Control	None	0	5	6	4	5.0

14 Days After Treatment		Adjuvant	% Controlled (Rep.)			
Herbicide & Rate	Adjuvant	Rate (ppm)	#1	#2	#3	Avg.
Clipper 8 oz/a	AquaSticker	1	95	95	94	94.7
Clipper 8 oz/a	AquaSticker	3	97	99	98	98.0
Clipper 8 oz/a	AquaSticker	6	96	99	95	96.7
Clipper 8 oz/a	None	0	95	99	97	97.0
Control	None	0	0	0	0	0.0

START



END



CONCLUSION

This study suggests that Naturalake Biosciences' biocatalysts may be used to improve control of duckweed over Clipper herbicide alone. Treatments receiving Naturalake Biosciences' biocatalysts achieved greater control in a shorter period in this study.

In addition, treatments receiving Naturalake Biosciences' biocatalysts were able to maintain control for longer periods before new growth was observed.



AQUASTICKER DOSAGE - WHEN MIXED WITH ALGAECIDE OR HERBICIDE

Surface Acres	Cyanobacteria	Planktonic Algae	Aquatic Plants
1/4	1 - 5 pounds	1.25 - .75 pounds	.25 - 1.25 pounds
1/2	2.5 - 10 pounds	.5 - 1.5 pounds	.5 - 2.5 pounds
1	5 - 20 pounds	1 - 3 pounds	1 - 5 pounds
5	25 - 100 pounds	5 - 15 pounds	5 - 25 pounds
10	50 - 200 pounds	10 - 30 pounds	10 - 50 pounds
100	500 - 2000 pounds	100 - 300 pounds	100 - 500 pounds

- AquaSticker is available in multiple container sizes: 10 & 30 pound pails with 1 pound packets, or 30 pound bulk containers
- Fully dissolve AquaSticker in chemical solution and spray evenly over target

USES AND APPLICATIONS, INCLUDING BUT NOT LIMITED TO:

- Lakes and ponds
- Golf courses
- *Anabaena*
- *Oscillatoria*
- Spikerush
- Aquaculture
- Retention ponds
- *Microcystis*
- *Plankothrix*
- Water lillies
- Hatcheries
- Decorative ponds
- *Lyngbya*
- Duckweed
- *Chlorella*

THE SCIENCE BEHIND IT

IMPROVING PROBIOTICS

AquaSticker's unique traits and essential components allow it to combine well and improve the performance of our probiotics and biocatalysts (Water Column Clarifier and PondZilla Pro). When blended together, AquaSticker and Water Column Clarifier will improve formation of microfloc which clarifies the water. When mixed with PondZilla Pro, AquaSticker improves the biological reaction at the surface of the algae or plant. PondZilla Pro works synergistically with systemic herbicides and ensures thorough and complete degradation of dead aquatic plants.

IMPROVING ALGAECIDES/HERBICIDES

The effectiveness of a chemical treatment can be limited by the ability the microbiota to protect its host. Shifting metabolic activities or reactions and producing thick biofilms are examples of how the microbiota defends algae and aquatic plants from copper, diquat, endothall, and other chemistries.

When blended in with algaecides and herbicides, AquaSticker temporarily disrupts the protective microbiota by fostering competitive microbial growth on algae and aquatic plants. Upsetting the natural balance of this community temporarily enhances chemical uptake by the host. AquaSticker also improves contact time with targeted algae and aquatic plants by slowing dissipation in the water column and increasing adhesion.

