

# AGMIN NEWSLETTER No. 228

## Cost Effective Algal Bloom Management Strategy Using Cupricide®

Managing water bodies, which have recurring algal blooms caused by; excessive nutrients, shallow, slow-moving or stagnant water and high temperatures, requires the development of a cost-effective algal bloom strategy.

*Strategy A* illustrated in Figure 1, shows a typical growth cycle of algal cells in a given water body. The peaks in the graph indicate the point of dosing with Cupricide® Algicide with 1.0 ppm copper concentration, when the algal cell density is 100,000 cells/ml (Alert Level 2).

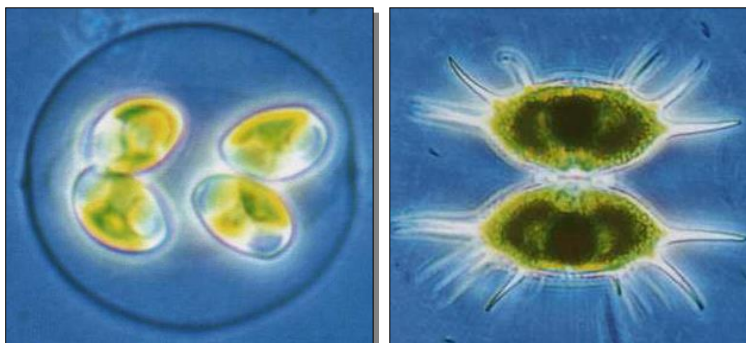
Although this Algicide dosing is effective in eliminating >99.8% of algal cells present in the water after 2 to 3 days, this is a more costly algal bloom management strategy, because a greater quantity of Cupricide® Algicide is required, compared to *Strategy B*.

*Strategy A* also implies that following Cupricide® dosing, there will be higher levels of decomposing algal biomass present in the water, which may block filters, pumps and outlets.

*Strategy B* indicates the same algal cell growth rate; however the water is dosed with Cupricide® Algicide at a much earlier stage of algal growth (20,000 cells/ml) with only *half* the copper concentration as used in *Strategy A*.

Treating algal blooms at an earlier stage means that there will be less residual algal cells to be treated in the following cycle, and lower levels of decomposing biomass.

*Strategy B* is a much more cost-effective strategy, as it requires less Cupricide® Algicide to treat less algal cells. In other words, you can achieve the same results at half the cost, with cell monitoring and earlier Algicide dosing.



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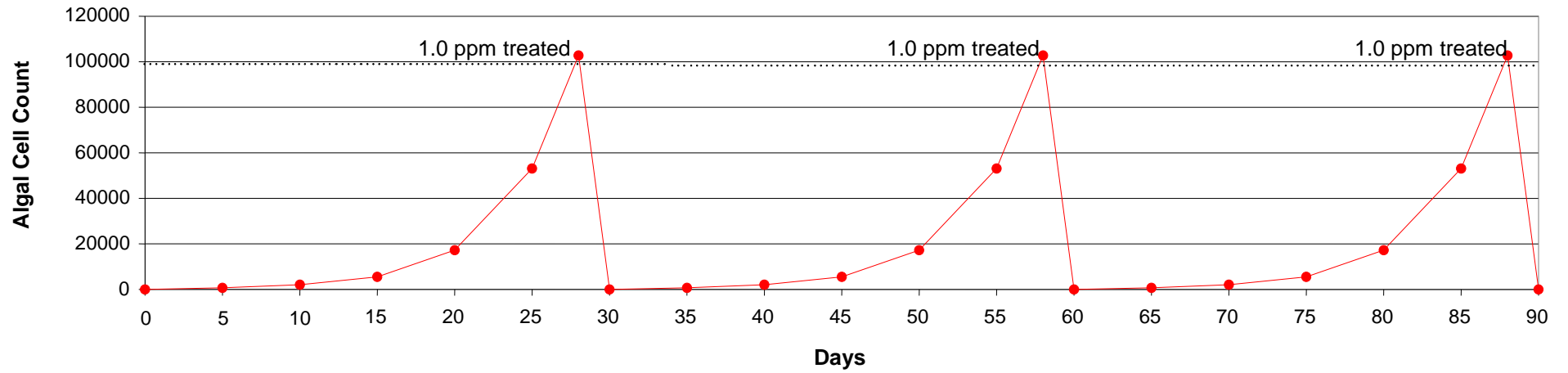
Email: [service@agmin.com.au](mailto:service@agmin.com.au) Website: [www.agmin.com.au](http://www.agmin.com.au)



**Strategy A:**

1 ppm Cupricide @ 100,000 c/mL

**Treatment in Algal-Bloom Stage is not Cost Effective**



**Strategy B:**

0.5 ppm Cupricide @ 20,000 c/mL

**Cost Reduction by Treatment in Early Algal Growth Stage**

