

PROFESSIONAL ALGAE CONTROL  
**GreenClean®**



**A COMPLETE USER GUIDE**

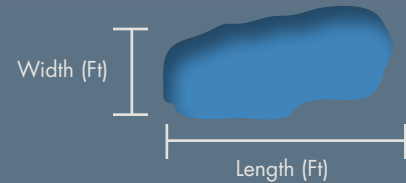
**Bi** **Safe Systems**<sub>L.L.C.</sub>

# GreenClean® Field Guide

## Formulas for Determining Acreage

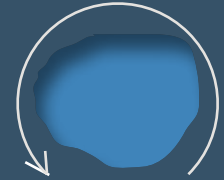
### Rectangular

$$\text{Surface Acres} = \frac{\text{Length (ft.)} \times \text{width (ft.)}}{43,560}$$



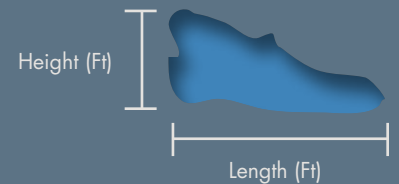
### Circular

$$\text{Surface Acres} = \frac{(\text{Total feet of shore line})^2}{547,390}$$



### Triangular

$$\text{Surface Acres} = \frac{\text{Length (ft.)} \times \text{Height (ft.)}}{87,120}$$



## Formula for Determining Acre-Foot

$$\text{Acre-Foot} = \text{Acreage} \times \text{Average Depth}$$

An Acre-Foot of Water is 325,851 Gallons

## SIX EASY STEPS FOR APPLICATION

1. Identify the algae & quantify the density of the bloom
  - a. Surface Acres
  - b. Depth of the Bloom
  - c. Severity
2. Understand the treatment area
  - a. Characteristics
  - b. Size
3. Select the algaecide that best suits the situation - know your label
  - a. Granular – GreenCleanPRO
  - b. Liquid – GreenClean Liquid 2.0
4. Choose the proper application equipment
5. Apply in a manner that ensures full contact (top & bottom) with the algae
6. Follow up

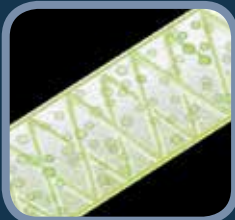
 **GreenClean<sup>®</sup> PRO**

Granular Algaecide/Fungicide

 **GreenClean<sup>®</sup> Liquid 2.0**

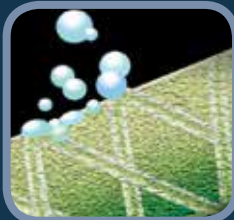
Broad Spectrum Algaecide/Bactericide

## The Science Behind GreenClean



Green Filamentous Algae Cell

### INITIATION



Product attaches to the cell wall surface and OH radicals begin penetrating the cell.

### PROPAGATION



Oxidation reactions commence and OH radicals propagate the cell, bleaching the Chlorophyll-a.

### TERMINATION



After the reaction is complete, the cell is destroyed, leaving only water and oxygen behind.

**UNDERSTANDING OXIDATION:** The illustration above recreates what happens when GreenClean chemistry comes in contact with an algae cell.

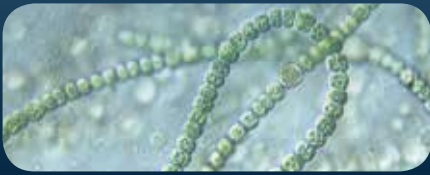


GreenCleanPRO Application



GreenClean Liquid 2.0 Application

Need help with identifying the algal species?



Contact Jeff Kline, Aquatics Manager.

Both GreenCleanPRO and GreenClean Liquid 2.0 utilize the power of oxidation to kill algae.

## **BENEFITS**

- Broad Spectrum Algae Control
- Copper Alternative – May Be Used in Copper Restricted Areas
- No Use Restrictions – Treated Waters Can Be Used Without Interruption
- Releases Oxygen – Adds 13% Bio-Available Oxygen as it Works
- No Mutational Resistance – Algae Will Not Build a Tolerance to this Chemistry
- Safe and Effective in All pH Ranges

## **APPLICATION METHODS**

### **GreenCleanPRO**

- Spreading/Broadcasting
- Spot Treatment
- Full Volume Treatment
- Aerial Treatment
- Subsurface Treatment

### **GreenClean Liquid 2.0**

- Spot Treatment
- Full Volume Treatment
- Spray Application
- Subsurface Treatment
- Tank Mix with Compatible Chemistries

## **EFFECTIVENESS FACTORS**

Effects of a GreenClean treatment are immediately apparent (bubbling, bleaching, and discolorization of algae). Treatments are most successful when GreenClean makes thorough contact with the algae mat or bloom.



**Tear and Keep Handy!**

# Total Product and Active Ingredient PPM of Different Rates for GreenClean®PRO and GreenClean® Liquid 2.0

Active Ingredients: Sodium Carbonate Peroxyhydrate-85.0%\*

\*Contains 27.6% Hydrogen Peroxide (50% strength) by Weight

Active Ingredients: 27.1% Hydrogen Peroxide (H2O2) and 2.0% Peracetic Acid (PAA)

GreenCleanPRO Rate (Lbs./acre-ft)	Total Product PPM	AI (H2O2) PPM
1	0.37	0.05
2	0.74	0.10
3	1.10	0.15
4	1.47	0.20
5	1.84	0.25
10	3.68	0.51
15	5.52	0.76
20	7.37	1.02
25	9.21	1.27
30	11.05	1.52
35	12.89	1.78
40	14.73	2.03
45	16.57	2.29
50	18.41	2.54
55	20.25	2.80
60	22.10	3.05
65	23.94	3.30
70	25.78	3.56
75	27.62	3.81
80	29.46	4.07
85	31.30	4.32
90	33.14	4.57

GreenClean Liquid 2.0 Rate (Gal/acre-ft)	Total Product PPM	AI (H2O2) PPM	AI (PAA) PPM
1	3.07	0.83	0.06
2	6.14	1.66	0.12
3	9.21	2.49	0.18
4	12.28	3.31	0.25
5	15.34	4.14	0.31
6	18.41	4.97	0.37
7	21.48	5.80	0.43
8	24.55	6.63	0.49
9	27.62	7.46	0.55
10	30.69	8.29	0.61
11	33.76	9.11	0.68
12	36.83	9.94	0.74
13	39.90	10.77	0.80
14	42.96	11.60	0.86
15	46.03	12.43	0.92
16	49.10	13.26	0.98
17	52.17	14.09	1.04
18	55.24	14.91	1.10
19	58.31	15.74	1.17
20	61.38	16.57	1.23
21	64.45	17.40	1.29
22	67.52	18.23	1.35

For more information contact BioSafe Systems  
1.888.273.3088 • [www.biosafesystems.com](http://www.biosafesystems.com).

Always read and follow label directions before use.



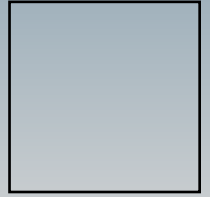
**PPM Charts**



**BioSafe Systems**<sup>LLC</sup>

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Tear along perforation to keep the GreenClean Field Guide handy.

## **COPPER ALTERNATIVE BROAD SPECTRUM ALGAEICIDE**

**OMRI**<sup>TM</sup>  
**Listed**  
Organic Materials Review Institute

