
Keys to Your
WATER HEALTH
MANAGEMET
SePRO

Every Healthy Pond Starts with the Right Plan

We built a 3-step process specifically for DIY pond owners:

1. Assess the problem.
2. Select your treatment.
3. Apply it the right way.

No more confusion. Just clear water and real results.

STEP 1

ASSESS

Plants shown are some of the more common plants in residential lakes and ponds
(Recommended treatment is shown after plant name)

Algae

Algae are primitive plants with no true leaves, stems or root systems.

Filamentous ('moss')

Cutrine PLUS (liquid) for top growth, and Cutrine Plus Granular

Thread-like, usually grows from bottom and rises to top as greenish surface mats.

Planktonic ('Pea Soup')

Cutrine Plus (liquid), Algi-Cure

Microscopic plants (including cyanobacteria) cause green or brown tinge, algae blooms

can cause odor, oxygen loss, fish suffocation and toxins.

Chara (Muskgrass, Stonewort)

Cutrine Plus Granular

Leaf-like structures make this form of algae easily confused with submerged weeds, identify by musky odor when crushed, and bristly feel.

Emergent Plants

Emergent (Marginal) plants grow above water in shallow depths.

Creeping Water Primrose

Weedtrine D or Sonar RTU

Hollow red stem with many leaves and yellow flowers

Purple Loosestrife

Weedtrine D

A wetland plant with showy 2 - 7 ft tall purple flowers arranged on flower spikes.

Phragmites

Weedtrine D

Perennial wetland grass that grows three to 20 feet tall with dull, very slightly ridged, stiff and hollow stems.

STEP 1

ASSESS

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Floating Plants

Floating plants can be divided into two basic categories: Plants rooted to the bottom with floating leaves and free-floating surface plants.

Duckweed

Sonar RTU

Small, oval-shaped plant smaller than a pencil eraser, root attached, common in quiet waters.

Salvinia

Weedtrine D with surfactant or Sonar RTU

Rounded paired leaves 1/2" long with root-like hairs beneath.

Watershield

Weedtrine D or Sonar RTU

Oval-shaped leaves with slimy coating underneath and on stems of mature plants, purple flower in early summer.

Water Lily

Weedtrine D

Round notched leaves Similar to Spatterdock, heart shaped leaves with yellow flowers.

Azolla

Weedtrine D or Sonar RTU

The delicate lacey scale like leaves overlap and float above the surface forming a dense mat with the roots trailing in the water.

Water Hyacinth

Weedtrine D with surfactant or Sonar RTU

Broad, lance-shaped leaves 8" long with blue flower. Common in (sub)tropical areas.

Submerged Plants

Submerged plants are usually rooted at the bottom and entirely under water.

Pondweeds

Weedtrine D or Sonar RTU

There are many species of pondweed including: Curly-leaf (upper left), & American (upper center)

Coontail

Sonar RTU or Weedtrine D

Rootless, leaves crowded at tip.

Eurasian Watermilfoil

Weedtrine D tank-mixed with Cutrine Plus (liquid) or Sonar RTU

Leaves in whorls of 4 with up to 20 leaf divisions, stalk with tiny reddish flowers may extend above surface.

Naiads

Weedtrine D tank-mixed with Cutrine Plus (liquid) or Sonar RTU

Slender, branching stem with leaves <1" long that are wider at the base; spines on margins.

Hydrilla/Elodea

Weedtrine D tank-mixed with Cutrine Plus (liquid) or Sonar RTU

Long-stemmed branching plants with whorled leaves $^{5}/_{8}$" long. Leaves toothed in Hydrilla, not toothed in Elodea.

Poor Water Quality

Water that is murky with organic materials and/or excess nutrients

Nutrient Overload

ReSTORE WC

Surplus nutrients, like phosphorus, harm ecosystem stability.

Organic/Muck Excess

Bayout Select Aquatic Microbial Blends

Beneficial bacteria reduce organic waste by breaking it down.

Need More Help?

Visit our dedicated support site

You can also reach us by phone M-F from 8am-5pm EST

800-558-5106

STEP 2

SELECT PRODUCT

The algaecides and herbicides recommended in this guide have been registered with the EPA and meet the federal safety standards put forth to protect human health and the environment. Make note that koi, hybrid goldfish/carp, and trout can be particularly sensitive to copper products. Seek expert advice when treating waters containing these

Aquashade® Aquatic Plant Growth Control

More than a colorant! EPA registered dye controls underwater plants.

Aquashade® PLUS

2.4x more concentrated than the original Aquashade for powerful underwater weed control.

Wait one hour and water can be used to fish, swim, irrigate or water animals:

Blue Bayou® Pond Colorant

Beautifies ponds by tinting water a pleasing blue color.

Midnight Bayou™ Pond Colorant

Beautifies ponds by tinting water a pleasing blue-black color.

Black Bayou™ Pond Colorant

Beautifies ponds by tinting water a mirror-like black color.

Wait one hour and water can be used to fish, swim, irrigate or water animals:

ReSTORE® WC Water Column Phosphorus Inactivator

Improves the health and beauty of your pond by eliminating excessive nutrients that feed algae and weed growth.

Water can be used immediately to fish, swim, irrigate, or water animals:

Bayou Select® Aquatic Microbial Blends

Benefical bacteria reduce muck and odors, improving water clarity.

Water can be used immediately to fish, swim, irrigate, or water animals:

Aquashadow® WSP Blue & Black Lake & Pond Colorants

In water-soluble packets (WSP), an easy to use application of dye for a naturally pleasing appearance.

Water can be used immediately to fish, swim, irrigate or water animals:

types of fish. Waters that have an abundance of vegetation may already be low in dissolved oxygen and stressing fish. When treating, decaying vegetation consumes oxygen, putting fish at more risk. To reduce the risk to fish of oxygen depletion, treat only 1/3 to 1/2 of the pond at a time. Wait 1 - 2 weeks between treatments.

Call SePRO at 1-800-558.5106 with any questions. We're here to help you and your fish.

Sonar® RTU Pint Aquatic Herbicide

Systemically kills many species of aquatic weeds.

Water can be used immediately to fish or swim. Wait 1 day to allow animals to drink the water. See label for potable water and irrigation restrictions:

AMP↑® Activator

Concentrated blend of proteins and surfactants designed to improve the efficacy of aquatic pesticides.

Water can be used immediately to fish, swim, irrigate, or water animals:

Weedtrine® D Aquatic Herbicide

Quickly kills many species of aquatic weeds.

Water can be used immediately to fish or swim. Wait 1 day to allow animals to drink the water. See label for potable water and irrigation restrictions:

Algi-Cure® Algaecide

Fast algae contact from top to bottom.

Water can be used immediately to fish, swim, or water animals. See label for irrigation restrictions:

Cutrine® Plus & Cutrine Plus Granular Algaecides

Fast algae contact from top to bottom. Available in a liquid or granular form.

Water can be used immediately to fish, swim, or water animals:

STEP 3

APPLY

Measure the treatment area to aid in purchasing the correct amount of chemical, avoid wasting product, and avoid over- or under-dosing the water.

Useful Formulas

1. Rectangular Pond/Lake **Surface Acres** = $\frac{\text{Length (ft.) x Width (ft.)}}{43{,}560}$

2. Circular or Oval Pond/Lake **Surface Acres** = $\frac{\text{Length (ft.) x Width (ft.) x 0.8}}{43{,}560}$

3. **Average Depth** = $\frac{\text{Sum of the Depth Measurements Taken}}{\text{Number of Depth Measurements Taken}}$

4. **Acre-Feet** = Surface Acres x Average Dept

5. **Converting Gallons to Acre-Feet:** Acre-Feet = $\frac{\text{Gallons of Water}}{325{,}869}$

Acreage Calculation Chart

AREA (in surface acres)																
WIDTH (in feet)	*LENGTH (in feet)*															
	30	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**
30	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.10	0.14	0.17	0.21	0.24	0.28	0.31	0.34
40	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.14	0.18	0.23	0.28	0.32	0.37	0.41	0.46
50	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.17	0.23	0.29	0.34	0.40	0.46	0.52	0.57
60	0.04	0.06	0.07	0.08	0.10	0.11	0.12	0.14	0.21	0.28	0.34	0.41	0.48	0.55	0.62	0.69
70	0.05	0.06	0.08	0.10	0.11	0.13	0.14	0.16	0.24	0.32	0.40	0.48	0.56	0.64	0.72	0.80
80	0.06	0.07	0.09	0.11	0.13	0.15	0.17	0.18	0.28	0.37	0.46	0.55	0.64	0.73	0.83	0.92
90	0.06	0.08	0.10	0.12	0.14	0.17	0.19	0.21	0.31	0.41	0.52	0.62	0.72	0.83	0.93	1.03
100	0.07	0.09	0.11	0.14	0.16	0.18	0.21	0.23	0.34	0.46	0.57	0.69	0.80	0.92	1.03	1.15
150	0.10	0.14	0.17	0.21	0.24	0.28	0.31	0.34	0.52	0.69	0.86	1.03	1.21	1.38	1.55	1.72
200	0.14	0.18	0.23	0.28	0.32	0.37	0.41	0.46	0.69	0.92	1.15	1.38	1.61	1.84	2.07	2.30
250	0.17	0.23	0.29	0.34	0.40	0.46	0.52	0.57	0.86	1.15	1.43	1.72	2.01	2.30	2.58	2.87
300	0.21	0.28	0.34	0.41	0.48	0.55	0.62	0.69	1.03	1.38	1.72	2.07	2.41	2.75	3.10	3.44
350	0.24	0.32	0.40	0.48	0.56	0.64	0.72	0.80	1.21	1.61	2.01	2.41	2.81	3.21	3.62	4.02
400	0.28	0.37	0.46	0.55	0.64	0.73	0.83	0.92	1.38	1.84	2.30	2.75	3.21	3.67	4.13	4.59
450	0.31	0.41	0.52	0.62	0.72	0.83	0.93	1.03	1.55	2.07	2.58	3.10	3.62	4.13	4.65	5.17
500	0.34	0.46	0.57	0.69	0.80	0.92	1.03	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74

Aquashade Aquatic Plant Growth Control

For control where plants are not within 2 feet of the water surface.

_____ acre-feet x 32 oz./acre-feet = _____ oz. to use

Aquashade PLUS Aquatic Plant Growth Control

For control where plants are not within 2 feet of the water surface.

_____ acre-feet x 13 oz./acre-feet = _____ oz. to use

Blue Bayou,® Midnight Bayou,™ & Black Bayou™ Aquatic Colorant

Determine the water volume (acre-feet or cubic meters) as follows:

$$\frac{\text{Length (ft.) x Width (ft.) x Average Depth (ft.)}}{43{,}560} = \text{Acre-feet}$$

Apply 32 oz. per acre-foot.

Bayou Select® Aquatic Microbial Blend

For first time applicatiions to reduce pond muck and organic matter.

Pellets: _____ acres x 20 lb./acre = _____ lb. to use

Liquid: _____ acre-feet x 3 gal./acre-feet = _____ gal. to use

(See container label for amounts to use for maintenance application. Use maintenance application amount once desired appearance is reached.)

Algi-Cure® Algaecide

Determine the water volume for the treatment area (acre-feet or cubic meters) as follows:

$$\frac{\text{Length (ft) x Width (ft) x Average Depth (ft)}}{43{,}560} = \text{Acre-Feet}$$

Then calculate the dosage for that area as follows:

_____ acre-feet x 0.6 gal./acre-feet = _____ gal. to use

Koi, hybrid goldfish/carp and trout are sensitive to copper products. Call SePRO for help at 1-800-558-5106.

Cutrine® Plus Algaecide

Liquid: For most mild cases of "pea-soup" or string algae.

_____ acre-feet x 0.6 gal./acre-feet = _____ gal. to use

Granular Dosage: 60 lbs. per surface acre (1 lb. treats 720 sq. ft.)

_____ acre-feet x 60 lbs./surface acre = _____ lbs. to use

Koi, hybrid goldfish/carp and trout are sensitive to copper products. Call SePRO for help at 1-800-558-5106.

Sonar® RTU Pint (Ready to Use) Aquatic Herbicide

1/4 acre: 64 oz. (4 pints) Sonar RTU

1/4 acre: Apply 2 pints followed by a treatment of 1 pint. 21 days later, and another 1 pint 21 days after second treatment.

1/2 acre: 128 oz. (8 pints) Sonar RTU

1/2 acre: Apply 4 pints followed by a treatment of 2 pints 21 days later, and another 2 pints 21 days after second treatment.

Weedtrine® D Aquatic Herbicide

For submerged weeds:

_____ acres x 5 (up to 10) gal. = _____ gal. to use

For emergent weeds make sure you add a surfactant:

_____ acres x 5 gal. = _____ gal. to use

For floating weeds make sure you add a surfactant:

_____ acres x 2.5 (up to 3.75) gal. = _____ gal. to use

AMP↑® Activator

Mix 2.5 oz. of AMP↑ with every gallon of water mixed with your herbicide or algaecide.

ReSTORE® WC Water Column Phosphorus Inactivator

Determine the volume (acre-feet) of your pond using the following formula:

$$\frac{\text{Length (ft.)} \times \text{Width (ft.)} \times \text{Average Depth (ft.)}}{43{,}560} = \text{Acre-Feet}$$

Apply 2 PDU per acre-foot in the spring and 1 PDU per acre-foot as a maintenance dose during the growing season.

Aquashadow® Blue & Black Water-soluble Packets (WSP) Colorant

Toss in one pouch per acre-foot of water:

$$\frac{\text{Length (ft.)} \times \text{Width (ft.)} \times \text{Average Depth (ft.)}}{43{,}560} = \text{Acre-Feet}$$

Note: One acre-foot = 326,000 gals. = 1,234 m^3

Pond volume:	1 acre-foot	2 acre-feet	3 acre-feet
How many:	1 packet	2 packets	3 packets

Always read and follow the product label—it's the simplest way to ensure you get great results, use the right amount, and keep your pond, fish, and family safe.

Still have questions? Call us at 800-558-5106

Frequently Asked Questions

I spilled some dye product; how do I clean it up?
Don't add water. Soak up as much as you can with absorbent cloths. Scrub stain with oxygenated cleaner or mild bleach solution. Contact SePRO at 1-800-558-5106 for additional assistance.

Why use Cutrine Plus Algaecide instead of Copper Sulfate Crystals?
Cutrine Plus Algaecide is chelated, which protects the copper from binding with carbonates in the water. This allows the copper to stay active against algae longer. The chelated formula is more effective and longer lasting, especially in hard water.

What is a non-ionic surfactant? And do I need it?
A non-ionic surfactant like AMP↑ is a necessary additive when applying certain products to emergent or floating plants. The surfactant helps the chemical "stick" to the plant and penetrate the waxy leaf coating.

Why is Phosphorus bad for my waterbody and how to I remove the phosphorus?
Excess phosphorus ages your water and leads to larger algae blooms, increased weed growth, and poor oxygen levels. ReSTORE WC is designed to eliminate phosphorus from the water column.

If you're interested in having your phosphorus levels tested, contact us at **800-558-5106**.

When will I see results?
Planktonic algae should subside in 1 to 2 days. Filamentous algae often turn pale yellow or white in 3 to 4 days. Plants take longer, typically wilting or showing discoloration in up to 2 weeks.

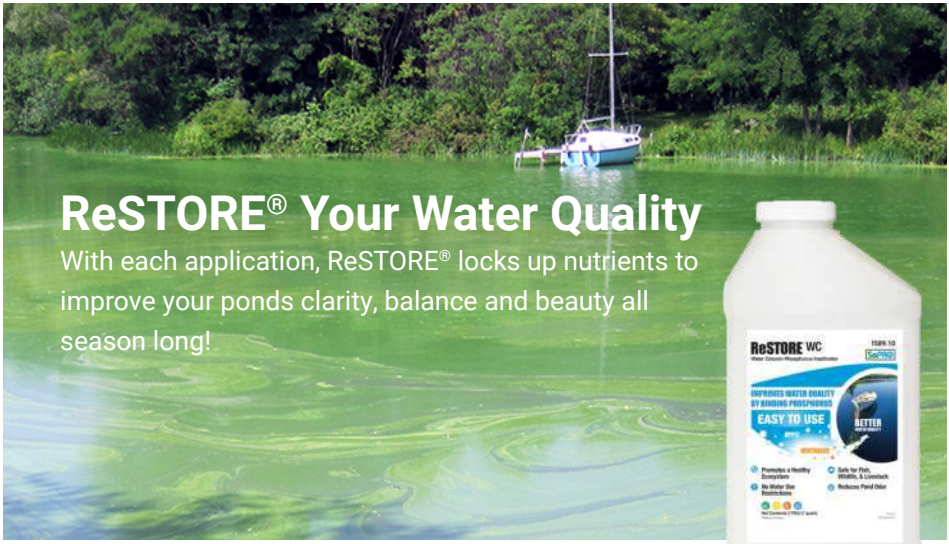
How long will control last?
Many weeds can be controlled for an entire season with one properly timed treatment. However, herbicides do not kill seeds and some do not get into root systems, which can result in regrowth. Algae often require treatments every 3 to 6 weeks because they are able to rapidly reproduce. If the plants/algae start to grow back or turn green again, check your dose and reapply.

Need more help?
Call SePRO at 1-800-558-5106. We have trained aquatic specialists that can help with product recommendations, dosing and application, plant identification, and any other pond questions.

Conversions

AREA	WEIGHT	DISTANCE
1 acre = 43,560 ft^2 4,047 m^2 0.405 ha.	1 pound = 453.6 gr. 16 oz. 0.45 kg.	1 foot = 0.305 m.

VOLUME		
1 oz = 29.6 mL. 6 tsp. 2 tbsp. 0.125 c.	1 acre-foot = 325,869 gal. 43,560 ft^3 1,233 m^3	1 gallon = 3,785 mL. 128 oz. 16 c. 8 pt. 4 qt. 3.78 L.



Need More Help?

Visit our dedicated support site

SePRO

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