

Aquatic management has everything that a good IPM management program has on the lawncare side: a pre-emergent, post emergent, biological controls, all of which are used in conjunction with scouting, cultural practices and prudent environmental judgment. All the same rules apply: know your pest and the appropriate time to apply a given material to get the desired result, and know how to minimize environmental impact through the use of a management program and practices.

Let's Start with a list of questions to ask yourself or the client when assessing a new body of water:

- Is there an absolute outlet for the body of water?
- If the answer is yes where does it end up?
- Is the body of water spring fed or does it get filled by runoff or is the pond fed by a well?
- If it is filled via runoff does the majority

come from agricultural land?

- Is the pond used for irrigation?
- Do people swim in the body of water or is it used for potable water?
- Is the body of water tidal or classified as a non-tidal wetland?
- Are there fish in the body of water?
- What is the cumulative acreage of the body of water?
- What is the average depth?
- What wildlife do we want to encourage/discourage?

The next step is evaluating the cultural practices or BMPs for aquatic management:

- Vegetative buffer strips around the body of water
- Mechanical removal or dredging.
- Nutrient management around the body of water. Leaving areas devoid of fertilizer immediately surrounding a body of water **ESPECIALLY WHEN USING PHOS-**

**PHORUS BEARING FERTILIZERS OR COMBINATION PRODUCTS.**

- Reduce organic decomposition within the body of water i.e. grass clippings, leaves and sticks.
- Use natural predators where applicable like *Gambusia affinis holbrooki* to control nuisance pests such as mosquitoes and *Ctenopharyngodon idella* to help to minimize grass-clipping decomposition that results in eutrophication.
- Use fountains to help add oxygen to the body of water.
- Keep inlets and outlets free of debris. Avoid running drainage directly into a body of water without a buffering area or filter. This applies primarily to golf courses.
- Scout frequently and address problems proactively!
- Remove invasive species and encourage the growth of native non-nuisance species. Applies greatly to tidal bodies of water.

## AQUATIC CONTROLS AND COLORANTS

APPLICATION	PRODUCT	UOM	DESCRIPTION	RATES
Step 1	<b>Prokoz Blue Lake &amp; Pond Dye WSP</b>	8.29 oz. 16/ case	A highly concentrated blend of dry-flowable colorants in easy to use packets. Quickly transforms water to a sparkling blue. Harmless to fish. Acts as an algaecide by diffusing light.	1 Water Soluble pack/acre ft.
Step 1	<b>Pond Champs Black Out WSP</b>	6.8 oz. 16/ case	Environmentally friendly, non-toxic, water soluble black dye creates a mirror like reflection.	1 Water Soluble pack/acre ft.
Step 2	<b>Aqua-T WSP Biological Water Treatment</b>	25 lb. Pail	Contains 17 types of beneficial bacteria. NOT AN ALGAECIDE. Removes algae's primary food source, (nitrogen) to eliminate algal blooms and works through the entire water column and sludge layer, digesting animal and plant life organic wastes to create a clear, clean and color free aquaculture. Okay for irrigation ponds. Environmentally Safe.	3 lbs. per acre-foot of volume. (6 water soluble packs) Thereafter apply 1 lb. (2 water soluble packs) every 2 wks.
Step 2	<b>Pond Champs Natural Pond Cleaner</b>	1 gal.	Used to bolster naturally occurring beneficial bacteria that digest pond muck and debris. 100% safe for humans & fish. Environmentally Safe.	1 gallon treats 1 surface acre, 4 - 6 ft. deep
Step 3	<b>SeClear Algaecide</b>	2.5 gal.	<u>16.2% Copper Sulfate Pentahydrate</u> . Used for Algae control. Formulated with water enhancing technology that blocks casual agents of eutrophication.	Refer to label
Step 3	<b>Pond Champs Algae-X</b>	1 gal.	<u>19.8% Copper Pentahydrate</u> . Used for algae control. Formulated using proprietary stabilizers that help keep the product suspended in the water column longer than traditional elemental copper sulfate.	1 gallon treats 1 surface acre, 1 - 3 ft. deep
Step 3	<b>Granular Copper Sulfate</b>	50 lbs.	Contains 99% <u>Copper Sulfate Pentahydrate</u> . Controls algae easily & effectively. Do not treat waters that contain trout. Treat only 1/3 - 1/2 of water body in any application. Treat remaining body 7-14 days later.	1/2 ppm. See Label
Step 4	<b>Reward Aquatic Herbicide</b>	2.5 gal. 1 gal.	<u>Contains 37.3% diquat dibromide</u> . Non-selective herbicide. Rapid burn down and control of Pondweed, Cattails and Duckweed. Do not use pond water for irrigation or spray tank application for up to 5 days.	Refer to label. 1/2 - 2 gal./surface acre Plex-mate is required.
Step 5	<b>Aqua-Neat Aquatic Herbicide</b>	2.5 gal.	<u>53.8% Glyphosate</u> . Aquatic Label Glyphosate. Use for emerged aquatic weeds like cattails and phragmites.	Refer to label. Plex-mate is required.
Adjuvant	<b>Pond Champs Plex-Mate Aquatic Surfactant</b>	1 gal.	Aquatic label surfactant used to help evenly distribute herbicides on the leaf surface and throughout the water column. Must be used with some copper sulfate applications, Reward and Aqua-neat.	Refer to label.
Mosquito Suppression	<b>Mosquito Dunks</b>	20/ card	<u>Contains 10% Bt Berliner v. isaelensis</u> . Floating ring controls mosquito larvae in any type of standing water. Dunks may be broken for small site use or anchored to prevent being washed away.	1 dunk/25 - 100 sq. ft. of surface area. See Label.