

Ponds

A basic pond water management guide

A pond can be a valuable addition to your property! Incorporated into a neighborhood park, a pond, can be a valuable oasis for wildlife and fish. With the addition of a fountain, a pond offers outstanding curb appeal and a beautiful addition to any neighborhood.



Overview:

In Southeast Michigan, most ponds are man made retention basins; that is, they are part of a storm water collection system. Rain events during the spring, summer, and fall are constantly washing weed and algae growing nutrients (i.e. phosphorus and nitrogen) into the pond. These sources are from animal droppings (ducks & geese), fertilizers, soil erosion, grass clippings, leaves and other plant debris.

As water temperatures begin to warm during the spring and summer months, the abundant nutrients in the pond speeds up nuisance weed and algae growth. These nutrients also add to deteriorating water quality. In addition, they can lead to high levels of E-Coli bacteria mainly from the animal droppings, and result in low oxygen levels particular near the bottom layers of the pond.

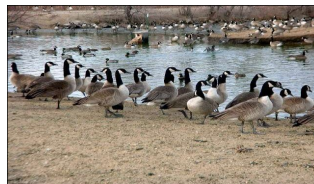
A low or no oxygen condition in the pond results in fish kills and an increase in muck build-up. And let's not forget, a calm pond full of weeds and algae is a breeding ground for mosquitoes!

Solutions that work!

Control the nuisance weeds and algae on a regular basis. Contract with or purchase products from a reputable firm such as Aqua-Weed Control, to control the weeds and algae using EPA approved herbicides and algaecides. Note...Copper sulfate, a commonly applied algaecide, kills mosquito larvae.

At least once a year rake out the sticks, leaves, trash, and other debris from around the pond. Thus reducing the amount of nutrients flowing into the pond.

Attempt to control the goose population around the pond. Do not feed the ducks or geese! Studies show that an adult male goose defecates up to 28 times in a 24 hour period. Shake the eggs, use scare away devices (balloons, gator heads, etc...) or use deterrent sprays such as Rejex-It.



Use "no phosphorus" fertilizers and slow nitrogen release fertilizers near your pond. One pound of phosphorus can produce over 10,000 pounds of wet weeds and algae!

Keep the lawn clippings out of the pond!

Aqua-Weed Control, Inc.



414 Hadley Street
Holly, MI 48442

Phone: 248-634-8388

Web: www.aquaweed.com

- Aquatic Weed Control Services
- Water Quality Testing
- Consulting / Mapping Services
- Product Sales

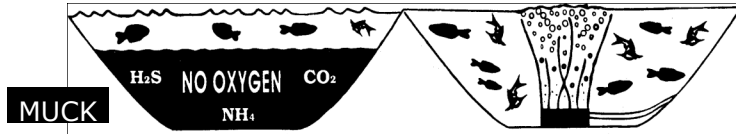
Solutions that work!

Add a fountain and/or aeration system to the pond.

A fountain adds beauty. A fountain or aeration system will circulate the water and add oxygen. Mosquitoes will not lay their eggs in circulating water!

Circulating water improves water quality. Circulating water improves the fisheries and reduces the chance of a fish kill.

Circulating water reduces the muck layer because the increase in oxygen will speed up muck breakdown.



[Typical aeration system set up.]

Solutions that do not work or are illegal!

- Barley straw does not work! After several years of study, Dr. Carole Lembi, a water quality and limnological scientist from Purdue University has concluded that the use of barley straw to control nuisance algae growth in ponds is largely ineffective. Researchers at the University of Nebraska, University of Florida, and North Carolina State University support Dr. Lembi's conclusions.
- Barley straw is not a registered algaecide with the EPA and is therefore illegal to be represented and sold as an algaecide.
- Buffered alum, aluminum sulfate, sold by some firms as "pond cleanser" is effective at nutrient encapsulation in ponds and preventing algae blooms but is typically not permitted by the MDEQ. If alum is being applied to your pond, chances are it is being applied illegally!
- Fountain and aeration devices will not affect weed growth or totally eliminate the need for periodic algae control. Of course, fountains and aeration do have many benefits, as discussed above.
- Bacteria is not an algaecide / herbicide and therefore will not directly control algae and weeds growth. After much study and field experience we have found little benefit from using bacteria. There are no scientific studies that support water quality benefits or muck reduction from bacteria treatments.

For further information please contact Aqua-Weed Control or any of these other sources:

Michigan Department of Agriculture- Michigan.gov/MDA (Pesticide & Plant Pest Mgt Division)
Mr. Brian Rowe
MDA, Pesticide Section Manager
517-335-6838

Michigan Department of Natural Resources and Environmental- MDEQ (Water Bureau)
Mr. Eric Bacon
MDEQ, Inland Lakes and Remedial Action Unit
517-241-9007

Mr. Kevin Goodwin
MDEQ, Surface Water Quality
517-335-4185

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Members of:



Michigan Aquatic Managers Association

