



Chautauqua County Soil & Water Conservation District
Northcrest Business Center, 220 Fluvanna Ave, Suite 600, Jamestown, NY 14701
Phone: 716-664-2351 Ext. 5, Email: chaut-co@soilwater.org

Pond Management: Controlling Algae and Aquatic Vegetation

Pond owners who are experiencing an issue with algae and/or an overgrowth of aquatic vegetation are encouraged to consider implementing Barley Straw Pond Kits and/or Triploid Grass Carp instead as an alternative to aquatic herbicides.

Those interested in purchasing a Barley Straw Pond Kit and/or Triploid Grass Carp should email chaut-co@soilwater.org or call 716-664-2351 Ext 5. Please be advised that the District office located on Fluvanna Avenue is currently closed to the public and that all purchases will be distributed via curbside pick-up or through making special pick-up arrangements only.

Barley Straw Kits

Barley straw should be applied as soon the ice has melted in the spring or prior to the temperature increase in late spring, as the algae control properties of barley straw take several weeks to begin.

You will first need to determine your pond's size in acres, then will need to plan to apply 4-5 bales of barley straw per acre. One acre is 43,560 square feet (roughly 208 feet by 208 feet). Kits include five mesh sacks and floats for every barley bale. The floats allow the kit to float at the ponds surface. Place mesh sacks onto the pond surface and anchor it to stay in place, the sacks should be spaced evenly around the pond to assure even coverage. Please note that mesh sacks should be anchored in an area of in-flowing water course.

After the Barley Straw Kit is placed in the pond, decomposition changes from being bacteria dominant to fungi dominant which leads to rotting. As fungi eat away at the remains of the barley material, humic acid is produced which reacts with oxygen and sunlight and results in a mild concentration of hydrogen peroxide that is still safe enough for fish but still works as an algae deterrent.

It is important to recognize that, the United States Environmental Protection Agency does not classify barley straw as a legal algaecide; and that barley straw is not a guaranteed remedy. The effectiveness of barley straw will depend on the concentration of algae present in your pond, the type of algae, and how quickly you would like to address the issue. Even though many pond owners have seen positive results, it is still considered to be a preventative method. As with many natural methods of control, the timeframe to see results is often much slower in comparison to mechanical and chemical treatments. If you have a major algae bloom in your pond, and your fish are suffering, opting to seek professional assistance may be necessary. In this case, it may be best to use barley as a preventive method after the issue is resolved by other means.

Facts used in this article pertaining to the use of barley straw as an algae deterrent were taken from the article *How to Prevent and Control Algae in Ponds* by Jim Ochterski, Cornell Cooperative Extension South Central New York Agriculture Team and Rebecca Schneide, Cornell University Department of Natural Resources with research from North Carolina Cooperative Extension Service, Perdue University and USDA NRCS (April 2003), as well as, the article *A Guide to Pond Barley Straw & How it Works for Clear Pond Water* by PondInformer.com (November 2017).



Pond Size	Bales
Small Ornamental Ponds (10'x10')	Small bag
¼ acre	1
½ acre	2
¾ acre	3
1 acre	4

Triploid Grass Carp

Triploid grass carp are sterile, aggressive eaters that prefer succulent and non-fibrous aquatic vegetation. Aquatic plant selectivity and consumption rates will vary widely according to a vast array of factors including water temperature, dissolved oxygen and presence or absence of attached algae.

In New York State, pond owners must obtain a permit from the NYS DEC to purchase Triploid Grass Carp. Through the application process, the NYS DEC will determine the number of fish that should be stocked into your pond.

If overstocked, Triploid grass carp can eradicate all of the plants from a pond for periods exceeding 10 years. For this reason, it is important to recognize that Triploid grass carp should only be added to a pond to control aquatic vegetation in two-year increments, as visible results from the first implementation of fish may not become noticeable until the following season.

Patience is key, as aquatic vegetation control with Triploid Grass Carp is a slow process. However, once the appropriate number of Triploid Grass Carp is found to maintain optimum control of a pond is achieved, control will last a number of years. If more rapid control is desired, other plant control methods such as mechanical harvesting or advised chemical applications can be integrated with Triploid grass carp use.

Triploid Grass Carp, and fish varieties such as Channel Catfish, Japanese Koi, Largemouth Bass, Perch, and Rainbow or Brook Trout are available for purchase through

the Chautauqua County Soil & Water Conservation District once a year and are distributed in June. Order forms for the fishpond stocking sale are mailed out and posted on the District website in late April.

To purchase Triploid Grass Carp, you will need to submit an application to the NYS DEC in advance, as Grass Carp Permits are required by all approved Triploid Grass Carp suppliers in accordance with New York State law. After receiving your permits from the DEC, all three copies of your permit should be submitted with your fish sale order form. One copy is kept on file, one copy is returned to the DEC and the final copy is returned to the pond owner at order pick-up.

Pond owners who plan to purchase other fish varieties such as Channel Catfish, Japanese Koi, Largemouth Bass, Perch, and Rainbow or Brook Trout should also apply for the Farm Fishpond License. A Farm Fishpond License allows the licensee, their immediate



family, and their employees to take fish at any time, in any size, in any number, and in any manner as stipulated in their individual license. The farm fishpond license also serves as a stocking permit, eliminating the need to obtain a separate DEC fish stocking permit which is required to stock fish into any waters of the state. The Farm Fishpond License is free and is good for five years.

Visit <https://soilwater.org/spring-fall-fish-stocking-sale/> to download permit and license applications and other necessary documents. Completed Grass Carp Permit Applications and Farm Fishpond License Applications should be mailed to NYS DEC Region 9 Bureau of Fisheries, 182 East Union Street, Allegany, New York 14706.

Facts used in this article pertaining to the use of Triploid Grass Carp to control aquatic vegetation were taken from the article *Triploid Grass Carp in New York Ponds: What is a grass carp?* by NYS DEC.

Pond Planning & Management

Chautauqua County Soil & Water Conservation District also offers pond planning and management consultation for Chautauqua County landowners who are interested in constructing a pond for wildlife, recreational and/or fire protection uses. This service assists potential pond owners in the evaluation, layout, and design of ponds.