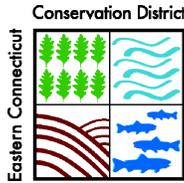


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CONTROLLING ALGAE WITH BARLEY STRAW

Pond algae is typically green, blue-green or brown, and free-floating. The two most common types of algae in this area are phytoplankton algae and filamentous algae. Phytoplankton algae may appear as a dense cloud in the water. Heavy blooms of phytoplankton algae can look and smell noxious. Filamentous algae are long and hair-like, and grow on the pond bottom in late winter through early summer. As water temperatures warm, oxygen and other gases collect under the filamentous mat and cause it to float to the surface, often giving it the appearance of floating moss.

Algae detracts from the beauty of ponds and can discourage recreational use. In addition, the decomposition of algae uses large quantities of oxygen, which can result in fish kills. As an alternative to expensive chemical control, many pond owners have found that placing loose bundles of barley straw in their pond prevents algae blooms.

The use of barley straw to control algae may be viewed as a “home remedy”. There is no scientific consensus on exactly how barley straw works. The leading theories relate to the byproducts of released lignins. Observations indicate that barley straw inhibits algae reproduction, and therefore prevents or greatly reduces algae blooms. Barley straw has not shown itself to have any negative effects on aquatic plants or animals.

The amount and frequency of use varies with the degree of algae infestation. However, below are guidelines which are intended to help those interested in utilizing this technique.

Rate: Rates are based on the size of the pond (surface area). One regular sized rectangular bale of barley straw is enough for approximately 20,000 square feet. However, every situation is different, so it may take some experimentation to find the optimal amount of barley to use.

Timing of application: The barley inhibits algae reproduction, so it needs to be in the water well before a bloom starts. If the bloom has already occurred, the barley will not kill the algae.

Frequency: The best results are gained by putting fresh barley in the water one to three times per year. The most commonly used frequency is two applications each summer. In a normal year, control can be achieved by putting barley in a pond in May and then again in late July. Here again, experimentation may be needed to determine the best frequency of application. Temperature is one factor. In cold water, the straw may take 3 months or more to be effective. In warm water (70 degrees F or more), it may only take one month. Also, it may help to put a new bale in and have some overlap time before removing the old one.

Location: For the greatest effectiveness, the inhibitor coming from the barley needs to be circulated throughout the pond. If there is an inlet feeding the pond, that is a good location for the barley. Aerators and fountains can also be used to help circulate the water near the barley. Also, the barley can be divided up and placed in multiple locations around the pond.

Flotation: The barley should be placed so that it is near the surface (for oxygen and sunlight). If the water is shallow enough (one to two feet deep), the barley can just sit on the bottom. Otherwise, some type of flotation should be used. Styrofoam “noodles”, like the ones kids use in swimming pools, work well (two per bale). The noodles can be reused over and over. Plastic bottles or other makeshift items can also be used.

Preparation: The bales need to be fluffed apart, not left in a tightly bound bale, so that water can circulate through the bale. Christmas tree netting (tubular netting) is an ideal type of netting to use to keep the straw from scattering about the pond. Other items, such as large (50 lb.) onion bags may work. One of the easiest methods of preparation is to take a 10 ft. length of Christmas tree netting and work the tube of netting over the bound bale. Next, insert styrofoam noodles into the tube of netting. Next, tie off the ends of the netting tube. Next, reach through the netting and cut the baling twine. After the twine has been cut, break and fluff the bale up as much as possible. (Note: If using plastic bottles for flotation, attach the bottles to the tied-off ends of the netting.)

Anchoring: If the barley is floating in the pond, some type of anchor (rock, block, brick, etc.) should be used to keep the barley in place. Or if the location allows, tie the bale to a stake(s) driven into the ground.

When it is time to replace the bale with a fresh one, pull the old bale onto shore and let it drain and dry for a few days, then move it to a location where it can decompose.