Using Barley Straw to Control Pond Algae

Excessive algae growth is one of the most common problems in ponds. Traditional mechanical and chemical methods of controlling the algae are not always effective or economical. In recent years, the use of barley straw has been found to be an extremely successful method of algae control, when applied correctly.

Barley straw does not kill existing algae, but rather inhibits the growth of new algae. It is not completely understood how this works, although it is thought that the barley straw, in the presence of oxygen and when exposed to sunlight, produces a chemical that inhibits algae growth. Barley straw does NOT reduce the growth of other aquatic plants. In fact, it may allow aquatic plant growth increase, as the plants have less competition from the algae.

Barley straw is most effective when applied before the appearance of algae in the pond (fall through early spring.) When applied to cold water less than 50 degrees Fahrenheit, it may take six to eight weeks for the straw to begin producing the chemicals that inhibit algae growth. If the straw is applied to warmer water above 70 degrees Fahrenheit, it may become effective in as little as one to two weeks. In any case, the barley straw remains effective for approximately six months after application.

The most common application rate is about two to three bales per surface acre of the pond. The depth of the water is not important. In ponds that have a history of heavy algae growth, two or three times this recommended dose may be required for the initial treatment. However, overdosing the pond may cause fish kill because the straw deoxygenates the water as it decays. This is especially a problem if the pond is overdosed with straw during a prolonged warm spell.

The straw is most effective when it is applied loosely in cages or netting. It is best to anchor the straw packages to the bottom, but provide a float to keep the straw near the surface of the pond where sunlight and oxygen are more prevalent. It is best to apply the straw at several locations around the pond and especially near the water source if a stream or spring feeds the pond. In small garden ponds, small nets or nylon stockings can be used to hold the small amounts of straw needed.

Barley straw needs oxygen and sunlight to work properly. Muddy or stagnant water will reduce the effectiveness of the straw. Overdosing as described above could cause fish kills in some ponds.

Finding a local supplier of barley straw can sometimes be difficult. You might consult with private and government agencies that work with local farmers, such as farm supply companies, Soil and Water Conservation Districts and Cornell Cooperative Extension, to find a source of barley straw.