

Sea Grant Extension
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Many times, a pond owner will have questions regarding the elimination of problematic algae, or the proper rates of fertilization. While pond owners may know what materials to use, they should not proceed without first checking certain water quality variables, particularly alkalinity. The water quality of the pond will play an important role in the behavior of both fertilizers and algaecides when applied to your pond.

The alkalinity of the pond plays a big part in many aspects of pond management including fertilization and weed control. Many ponds in south Alabama have low alkalinity. To raise the alkalinity, agricultural limestone should be added at two-five tons per acre. A good time to add lime to the pond to boost the alkalinity is the fall and winter. It will provide a good base when spring fertilization schedules start, which will generate healthy blooms, increase fish production and help to shade out problematic weeds.

In the case of problematic algae in a pond, copper sulfate is commonly used. However, before adding copper sulfate, the pond manager must first check the alkalinity of the water to be treated. If the alkalinity is too low (less than 50 parts per million), the concentration of copper sulfate needed to kill the algae can also be toxic to the fish. If the alkalinity is too high (greater than 200 parts per million), the treatment will likely not

work. If the alkalinity is tested, and found to be too low, the pond manager would first need to add lime to the pond at a rate of two- five tons per acre.

Alkalinity testing equipment can be found in most pool supply stores. Be sure you are testing the alkalinity, and not pH, which are related, but definitely different. Copper as well as most chemical additions to a pond carry some risk. Contact a fisheries biologist or your county extension office for additional information if you have questions before adding any chemical to a pond.

When fertilizing a pond, the alkalinity is again a critical consideration. Prior to the initiation of a fertilization schedule (generally in spring), the pond manager should check the alkalinity to make sure it is above 20 parts per million. If it is too low, the fertilizer will not react appropriately within the pond, yielding poor results and wasted time. The addition of agricultural limestone at a rate of two-five tons per acre is needed before adding fertilizer if your alkalinity below 20 parts per million.

For additional questions or information, contact P.J. Waters, Auburn University Marine Extension and Research Center, 438-5690.