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Pond Management

A properly located, well-constructed pond is a beautiful addition to a landscape. Ponds provide owners with excellent recreational activities such as fishing, swimming and wildlife viewing as well as potential water sources for livestock watering, irrigation and firefighting.

Building and maintaining quality ponds requires proper location and design, stocking with appropriate fish species and establishing vegetative cover.

If you are considering building a pond or have one to manage, seek professional guidance from a knowledgeable resource professional. This cannot be overemphasized. Cutting corners in this



area often comes back to haunt the pond owner.

POND CONSTRUCTION: The first step in good management is proper construction. A prospective pond owner should contact a representative of the Natural Resources Conservation Service (NRCS) in the county in which the pond will be constructed. The NRCS offers free guidance for planning, design and construction. Private consultants also provide assistance in pond management for a fee. The owner should also use a reputable contractor (with references) familiar with design and construction of ponds that meet NRCS engineering specifications.

While the pond is under construction, consult a fisheries biologist for recommendations that will enhance fishing. For example, brush piles or standing trees left in specified areas will serve as fish attractors. Fish attractors help anglers locate and catch fish. They attract fish by providing them cover and serving as habitat for aquatic insects and forage fish. Common types of fish attractors include evergreen treetops weighted to the bottom, piles of rock or cinder blocks, and tied and weighted reefs of discarded tires. Place them in shallow depths of two to six feet where oxygen levels are adequate.

Advice can be given on underwater contours (mounds or ditches), suitable sites for spawning (gravel), and placement of docks and piers. While the pond is under construction is a good time to apply agricultural limestone to the pond bottom.

Remove trees, stumps and fences that might be hazardous to boats or swimmers. **STOCKING:** The Division of Wildlife and Freshwater Fisheries provides, at a nominal cost, bluegill, redear sunfish (shellcracker) and the Florida strain of largemouth bass for ponds that contain no fish and meet other requirements. This agency also provides technical assistance on essential practices for proper pond management, such as fertilization, liming, weed control and fish harvest.

LIMING AND FERTILIZATION: Liming is essential before most ponds can be effectively fertilized. Many times, ponds will not respond to fertilization if bottom muds are acidic. Under these conditions, agricultural limestone must be applied to correct the acidity. If the pond fails to develop a plankton bloom after repeated applications of fertilizer, mud samples must be taken from the pond's bottom. Take samples from several different locations, and then mix them together. Spread the sample on a piece of plastic or wood to dry. After drying, a soil test kit from the Alabama Cooperative Extension System office should be filled with the dried mud and mailed to the Auburn University office listed in the sample kit. A nominal fee is charged for each test.

Fertilizer must be properly applied to increase natural fish food. Properly fertilized ponds normally produce 3 - 7 more pounds of bream and largemouth bass than unfertilized ponds. Before stocking, the pond owner should decide if fertilization is a part of the long-term management plan. Ponds cannot be fertilized economically if the water stays muddy or if excessive amounts of water are flowing through the spillway during spring and summer.

FEEDING FISH: Providing supplemental food is not a substitute for proper liming and fertilization. However, feeding will enhance bream and bass growth. Although bass will not readily consume supplemental feed, they benefit from improved bream production. Supplemental feeding also improves catch rates by concentrating fish in feeding areas. These feeding areas make it easier for young anglers to catch fish.

- Train bream to readily consume floating food by feeding them a small amount from the same location and at the same time daily.
- Once they are readily consuming the food, provide no more than they can consume in 15 minutes.
- Do not exceed the maximum daily feeding rate of 10 lbs. per acre. Supplying more than this amount could lead to a fish kill due to oxygen depletion from decomposing food. In highly fertile soils (high calcium content or in "prairie soil") the daily recommended feeding rate is 3 to 5 lbs. per acre.
- Use a small fingerling catfish pellet feed with at least 25% protein. Higher protein foods are costly and unnecessary.
- Feed bream through the growing season beginning in March until water temperature stabilizes at about 60 degrees through November. Decrease feeding to 3 to 4 times per week during the hot summer months.
- Winter feeding is not necessary as the metabolic rate of fish decreases with the water temperatures.

AESTHETICS: Water adds variety to a landscape and further enhances its quality. Reflections in water attract the eye and help create a contrast or focal point in the landscape. When possible, locate the pond so the major sight line crosses the longest dimension of water surface. The viewer should see the water first before noticing the dam, pipe inlet or spillway. Irregular shaped ponds with smooth, flowing shorelines are more compatible with the lines of country landscape. Allow existing trees and shrubs to remain along the shoreline. These add interest by casting reflections on the water, providing shade and blending the pool into the surrounding landscape. Establishing good vegetation also prevents erosion and siltation that affect the life of the pond.

WILDLIFE: Ponds naturally attract wildlife and can be managed to encourage visits from particular types of animals. Nesting boxes for wood ducks can be placed over the ponds. Shoreline vegetation attracts water birds, shore birds, rabbits, turtles, frogs and snakes. Rocks, stumps and brush near the water are attractive preening sites for birds. Blending the water supply into the landscape will encourage its use by fish, amphibians, waterfowl, reptiles and insects. Allowing plants and trees to shade areas of the ponds will encourage fish habitat and promote frequent use by a variety of wildlife year-round.

Uncontrolled vegetation, such as cattails, willows and reeds will limit access to pond banks and hinder fishing and other activities. Thick vegetation also provides habitat for muskrats and beavers, which cause severe damage to ponds.

RECREATION: Fishing, swimming, boating, photography and picnicking are just a few activities that a well-designed pond can offer the landowner. Shoreline gazebos, camping areas and even sandy beaches add interest and invite visitors to linger in the area.



Source: Alabama Cooperative Extension System ANR-1114. Photo credit: Alabama Forestry Commission



This information is provided by the Alabama Forestry Commission For more information please visit: <u>www.forestry.alabama.gov</u>