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 Cooperative
Extension Service



Farm Update

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AGRICULTURE & NATURAL RESOURCES
EDUCATION

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Pond Management

Proper maintenance can ensure pond performance for many years after construction. I receive calls each year about pond bank erosion, leaks, and weed infestations.

Fertilizer applied in the watershed, whether from lawns or farmland, fertilizes pond vegetation. Fish populations may benefit from minimal nutrient runoff of well-managed pastures, but excessive nutrients from livestock waste will create water quality problems. Aquatic plants and algae thrive on excessive nutrients and may become difficult to control.

Preventive weed control measures begin with proper design. Banks should be sloped steeply so that very little water is less than 2 to 3 feet deep. We recommend that the water depth increase one foot for every three feet out from the shore. If your pond has large patches of shallow water much of the summer, it may be time to hire a contractor to excavate it. Another preventative tool is a chemical shade product that provides an attractive appearance and prevents weed growth by blocking sunlight to keep it from reaching the bottom.

Weed control is an essential part of pond management. Chemical controls can be time-consuming and costly. Some may not be legal, safe, or practical in livestock watering ponds. Before using any chemicals, be sure to check that they are safe for livestock if the pond is serving this dual purpose. If the water is used for livestock, fence the pond and water the

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animals from a stock tank below the dam and outside the fence. Animals will increase turbidity, fertility, and erosion. Do not allow livestock access to a pond unless a gravity flow tank cannot be installed. In this case, fence the pond to allow limited access to a few locations around the shoreline.

If you develop a weed problem, mechanical controls can be used, but are limited to hand removal or dredging shallow pond areas. A biological control that can be used is triploid grass carp, which can help to keep some plants and algae in check. These fish are plant eaters and can help control pond vegetation.. They are sterile and will not reproduce. Select the largest available, as fingerling grass carp are fast food for bass in the pond. They need to be stocked at a rate of 5 to 20 fish or more per surface acre of water, depending on the severity of the plant problem.

Chemical control methods can also be used. Several types are labeled for aquatic weed control; therefore, weed identification is essential in determining which herbicide to use. Very different modes of action are needed to control floating algae, completely submerged weeds, or plants rooted in the bottom but emerging above the water surface. When used properly, aquatic herbicides effectively control vegetation without harming fish. There may be restrictions on water usage for a period of time after treating with a particular herbicide. Always check the herbicide label for possible restrictions.

Bank erosion and leaks can become expensive and difficult to repair. Maintain a good sod and grass cover around your pond, and do not allow trees to grow on the levee. They will eventually die and leave an extensive root system to rot and allow leakage. Crawfish burrows are a common problem. The key to controlling these is improving drainage in and around the

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levee to promote soil drying. This is easier said than done. There are no legal chemical control options because their burrow is a direct connection to groundwater. Doing everything possible to discourage their activity such as installing tile drainage is the best solution.

If a leak has developed that exceeds the refilling capacity of typical summer rainfall, it may be time to address it. Bentonite expanding clay is an option that works if you can determine where the leak is and direct the application to that location. The more expensive and inconvenient solution is to hire a contractor to drain the pond and reconstruct the levee. It's costly, but the reality is, most ponds need some major renovation every 20-30 years in addition to their annual maintenance.

For more information on pond construction and maintenance, contact the Daviess County Cooperative Extension Service at 685-8480.

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