

FactSheet 1

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Cattail Management

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Cattails are a common plant in many Ohio ponds. They are best described as having long, slender, grass-like stalks that can grow up to 10 feet in height (Figure 1). In late summer and fall, they form the brown seed heads that so many of us associate with cattails. A small area of cattails can be visually pleasing as well as provide fish and wildlife habitat. However, cattails rapidly spread via seeds and roots. In just a few short years without management, cattails "take over" a pond's shallow water areas. It is not unusual to see ponds that are completely surrounded by cattails. This ruins the pond's visual and recreational benefits. Fortunately, cattails can be successfully managed.

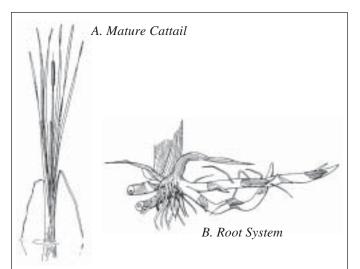


Figure 1. Illustration of a (A) mature cattail plant and (B) its associated underground root system that enables swift spreading. These cattail line drawings are the copyright property of the University of Florida Center for Aquatic Plants (Gainesville). Used with permission.

How Many Cattails are Okay?

This is largely up to the owner to decide, based on his or her management goals. Many pond owners prefer not to have any cattails because of their explosive ability to spread and the subsequent effort required to manage them. Other owners like areas of cattails because of the natural, pleasing aspect of them and for their value as fish and wildlife habitat. Most often, these owners like to limit cattails to about 10% of the shoreline areas. In a round one-acre pond, this would result in about 75 feet of shoreline. If you are an owner desiring some cattails, it is important for you to physically mark the areas you desire cattails and then prevent their spread outside the area. This requires occasional vigilance by the owner.

Mechanical Management

Physically removing cattails is a viable option when they first invade a pond or begin to spread from an area the pond owner wants them confined to. New cattails can easily be pulled by hand once the new green growth is about 6 inches above the water surface. Be sure to reach to the pond bottom and remove the entire plant, including as much of the attached root system as possible. Success of this technique depends on the pond owner being vigilant and regularly pulling out new growth.

An alternative, and somewhat easier, mechanical method is to continuously cut off the new green shoots as they emerge from the water. This can be accomplished with a sharp pair of shears or with a gasoline engine-powered trimmer (weed eater). Safety note: Never use electrical powered equipment around the pond, as such use could result in electrocution. This method's goal is

to prevent the leaves from reaching maturity, upon which time they produce and transport large amounts of food to the root system. A root system that is deprived of its food supply will eventually wither up and die. Again, persistence is key for this method to work.

Biological Management

There is currently no good choice to achieve biological control of cattails. Grass carp (white amur) are often mentioned as a potential control method, but in reality they prefer not to eat cattails.

Chemical Management

The use of chemicals is the most commonly used method to control cattails, because it is easy to accomplish and does not require persistent vigilance. Often, one application can accomplish the owner's goal. The drawbacks of chemical use is their cost and for some people, the application of chemicals to their pond environment. As with all chemical use, the product label should be read carefully and all application and safety instructions followed.

Two chemical compounds are the most effective in controlling cattails and are approved for aquatic use. These are diquat and glyphosate. Common trade names for these products are Reward (diquat) and Rodeo (glyphosate). However, a number of companies market other aquatic products using these compounds. They are generally available or can be ordered through agricultural supply or feed stores. Using either compound in accordance with the product label should not result in adverse effects on fish.

Diquat is a contact herbicide, meaning it kills only those portions of the plant that it touches. Thus, complete coverage of the cattail is needed to eliminate the plant. This requires spraying the area of cattails from several directions, a definite drawback. Another drawback is that diquat does not travel through the plant and

therefore does not reach the cattail's roots. The root system is not killed, allowing the same roots to grow new shoots the following year. Using diquat will require yearly applications.

Glyphosate is a systemic herbicide, meaning that it travels throughout the plant killing both the roots and vegetative portions. Systemic herbicides are preferred in the elimination of perennial plants, which the cattail is classified as. In treating cattails, a person can walk the shore making sure to spray glyphosate liberally on the portions of the cattails that can be reached. There is no need to spray from multiple directions. Another advantage is that one application can totally (or nearly so) eliminate the cattail stand. One drawback of glyphosate is that it is more expensive—systemic herbicides usually are.

It is recommended with both compounds that a nonionic surfactant be added to the solution prior to spraying. Surfactants result in uniform sheeting of the herbicide over the vegetative surface which increases the uptake of the herbicide. Cattails have a thick waxy coating on the leaf which slows down herbicide uptake. Without the surfactant, much of the herbicide would be lost to the liquid beads that would form and roll off the plant. One ounce of surfactant is generally recommended for each gallon of spray solution for controlling cattails.

Application timing is critical for cattail control and differs between diquat and glyphosate products. The contact herbicide diquat can be applied any time the cattails are green and actively growing. Most owners using diquat products apply in the summer. Glyphosate products have a narrower window for optimum results. These products should be applied just after the seed head has formed. Energy reserves are at their lowest in the roots and the plant begins to store food in the roots in anticipation of next year's growth. This food is produced in the leaves and transported to the roots. The application of glyphosate at this time results in its transport to the roots as well, thereby killing the root system.

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