How to control cattails in a farm pond

Cattails *(Typha latifolia, T. glauca, and T. angustifolia*) are native wetland plants with a unique flowering spike and long, flat leaves that reach heights of 4 to 9 feet. They are one of the most common plants in large marshes and on the edge of ponds. Many pond owners view cattails with uncertainty because they have a tendency to grow in thick, nearly impenetrable stands, blocking the view of open water and raising the concern that they will take over and cover a pond. This article describes the various techniques available for cattail control.

Cattails can be desirable in a pond. They provide important wildlife habitat, shelter for birds, food and cover for fish and for the insects they eat. Cattails help protect the banks of a pond from erosion. They intercept and reduce the force of small waves and wind on the shore. The stems catch and slow water and help trap sediment and silt. Cattail roots harbor microorganisms that help break down organic materials. New research shows that cattails can also remove polluting materials from the water surrounding their roots. It is pleasing to see small patches of cattails dispersed around a pond; however, a thick wall of cattails along the shore of the pond makes it hard to enjoy their benefits.

The tendency of cattails to grow in thick stands causes concern for many pond owners. If you want to reduce the amount of cattails in your pond, you should first determine how extensive they are and in what ways they interfere with your enjoyment of the pond. This will help you decide which approach will work for you.

Under the right conditions, cattails can grow and spread vigorously. The pollinated flowers develop into fluffy seed heads, blowing across a pond in autumn breezes. Just as commonly, cattails spread through their root system. The thick, white roots, called rhizomes, grow underground near the edge of ponds and in shallow swales. As long as the water is not too deep, the cattails feast off the open sunshine and abundant water, storing a large amount of food in the root system. In fact, cattails at the edge of pond can grow faster than fertilized corn in a field! The dense foliage and debris from old growth makes it very difficult for competing plant species to grow.

Cattails prefer shallow, flooded conditions and easily get established along a pond shoreline or in waters one to 1.5 feet or less in depth. When unimpeded however, the cattail beds will expand and can extend their hefty rhizomes well out into pond surface, actually floating above much deeper waters. Cattails need to have "wet feet" during most of the growing season.

If you want to control cattails, you will need to disrupt the root system through cutting, hand-pulling, dredging, flooding, freezing, or chemical herbicides. One treatment is seldom sufficient. However, if your timing is good, you can successfully control cattails without chemicals with only a few work sessions every few years.

Hand-pulling
Hand-pulling cattails is a good preventative measure for controlling cattails. It is much easier to pull cattails out of the pond when they are young, rather than at full height. Grasp a cattail at the base of the plant, trying to wrap your fingers around the roots. Slowly pull the plant and the white root out of the soil and cast it onto the shore of the pond. Proceed onto the next plant until you have cleared out the area as completely as you wish. The murky water will settle in a few days. Keep an eye on the area you cleared for new cattail growth. The pulled cattails will compost very easily if mixed with wood chips and other brown composting materials.

Mowing and cutting
Timing is everything if you decide to mow or cut your cattails. Cutting them in May stimulates growth, so wait until late summer if you are only going to cut once. If you cut the cattails below the water line two or three times in a season, very few cattails will grow back the following year. Your cutting will have deprived the roots of their important food source and reduced the amount for storage. Winter cutting will have very little effect on the food in the roots of the plant.

You should cut or mow your cattails with shears, a gas-powered weed trimmer, or another safe, sharp cutting tool. Do not use electrical tools near ponds. Cut the cattails as close to, or under, the water line, removing as much of the leaf blade as possible. Rake or pile the leaves away from the pond or add them to your compost pile. Cattail leaves make excellent, durable canes for chairs, mats, and other home crafts. A brush hog attachment on a tractor can be used only if the pond bank is stable and safely sloped. Do not operate heavy tractors on a dike.

Dredging
Some pond owners resort to dredging to remove cattails. The removal of the cattails and the soil they grow in is very disruptive to a pond, but can be more permanent solution to cattail control. The dredging activity should increase the depth at the edge of a pond to a point where cattails are unlikely to grow back (18 – 24”).

Dredging is best done when the pond level is lowered below the level where the work will take place. Avoid scooping out pond water, plants, and soil all at the same time. If the water line is lowered, the work can be done with a small bulldozer or backhoe by a qualified operator. Dredging creates an underwater shelf. Be aware that this sudden drop-off near the shore creates a drowning hazard for young children.

Flooding / freezing
Many ponds are built with water control devices. These are useful mechanisms when controlling cattails and other pond plants. To control cattails, reduce the water level during the growing season for mowing or hand pulling. Alternatively, you can partially freeze the roots if the water level is drawn down in the fall and left low during the coldest weather. Dropping the water level too low may result in oxygen depletion for over wintering fish. Some ponds may refill slowly in spring depending on weather conditions. Avoid dropping the water level late in the fall as many pond animals will have already buried themselves in the mud for the winter and could die of exposure.

In some ponds, the water level can be raised above cattail growth, making it difficult for the plants to obtain oxygen. Flooding must be carefully controlled to keep pond dikes stable.

Combining methods

The methods of cattail control noted above can be combined for more effective treatment. For example, regular mowing, combined with freezing, can eliminate cattails almost completely. Pond owners should plan their cattail control in advance, taking into account seasonal weather, wildlife uses, and disposal of cut or dredged material.

Use of chemical herbicides

Some pond owners seek quick remedies for pond plant problems through the use of aquatic herbicides (Rodeo, AquaPro, Reward, for example)*. Only "aquatic" herbicides can be used in ponds. It is illegal to use a chemical for pond plant control unless it is specifically labeled for that purpose. In the case of cattails, the label should include the word "cattail" or the botanical name "Typha spp." If you are in doubt, ask a qualified advisor or contact the manufacturer. Fish, swimmers, and other pond users can be seriously harmed if herbicides are used improperly. In many cases, aquatic herbicides contain restrictions regarding swimming, fishing, and watering livestock. They can be much more expensive than the other control options.

The amount of chemical herbicide to use, and directions for application are listed on the label of the product. In some cases, a non-ionic surfactant or dye can be mixed to improve performance of the herbicide and reduce over spraying. Follow label directions regarding personal protection, spray drift, and appropriate weather conditions for application.

In New York State, all aquatic chemical treatments require a NYS Department of Environmental Conservation permit. Contact your regional DEC office and ask for the "aquatic herbicide permit application." If your completed application is approved, you must show proof of having the permit before purchasing and applying aquatic herbicides. You may wish to hire a professional pesticide applicator that is certified in the category "Aquatic Vegetation" to apply chemical herbicides according to your plans.

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More information on pond management from Cornell Cooperative Extension is on-line at http://pond.dnr.cornell.edu