

Land & Water

Conserving Natural Resources in Illinois

University of Illinois Extension • College of Agricultural, Consumer and Environmental Sciences

Aquatic Weed Management

Prevention: The Starting Point

Many plant species grow in ponds and are important components of the aquatic environment, but excess weed growth can have a detrimental effect. Aquatic weeds can affect the quality of water for fishing, swimming, boating, and domestic use. In addition, excessive plant growth may result in fish kills.

Effective management of aquatic weeds begins with prevention. Aquatic weeds are more common in lakes and ponds that receive nutrient runoff from fields and feedlots, or seepage from septic tanks.

Maintaining a sod or grass cover around your pond will help reduce soil erosion and nutrient runoff. Because aquatic weeds are more common in nutrient-rich waters, reducing the input of nitrogen and phosphorus is particularly important.

Types of Control

Mechanical Control. For weeds growing in small patches, you can use mechanical controls, such as pulling, dredging, or cutting weeds beneath the water surface.

Most aquatic weeds are perennial, so it is important to remove roots to prevent re-sprouting. As aquatic weed infestations become more severe, mechanical removal is less practical.

Biological Control. The most widely used biological control is the grass carp. This fish will consume most filamentous algae—submersed and free-floating plants.

However, you should release only grass carp that are sterile (triploid) and cannot reproduce in nature. Check with your local fisheries department or the Illinois Department of Natural Resources for information and stocking rates.

Grass carp normally live for 10 to 15 years, so they will have to be restocked at some time.

Herbicides. Because no single herbicide will control all types of aquatic plants, it is important to correctly identify the weed. The illustration on page 2 shows the different types of weeds.

Types of Aquatic Plants

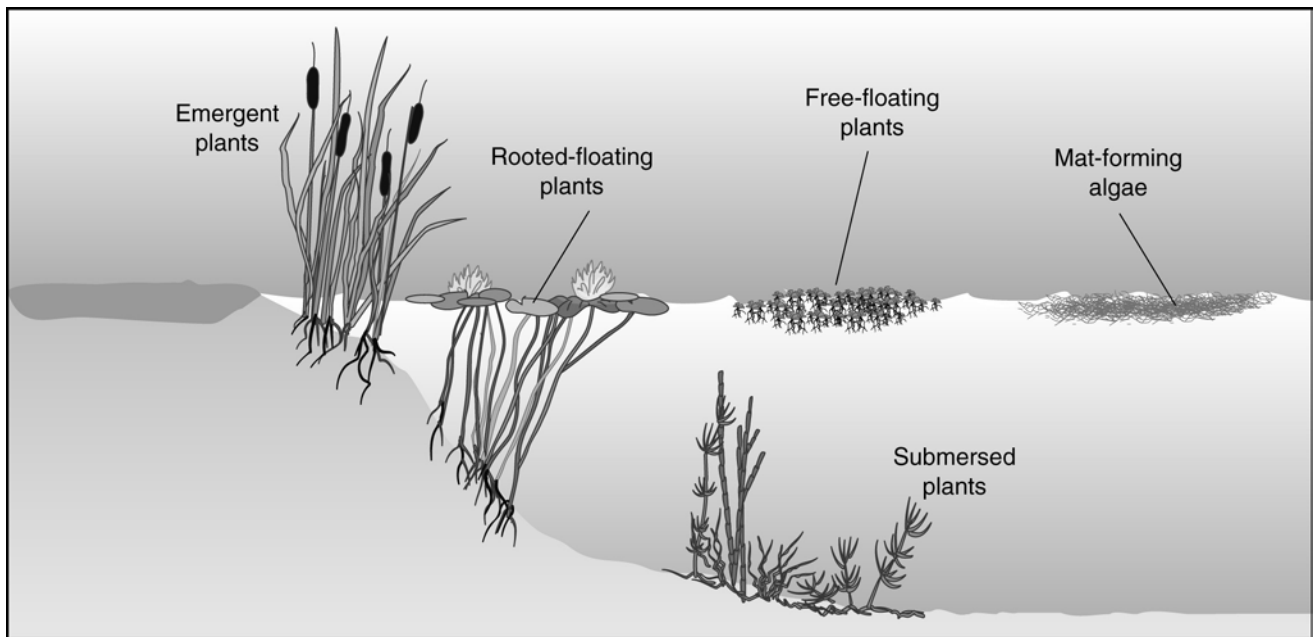
Algae include three different types: (1) microscopic (planktonic algae); (2) filamentous (mat-forming algae), and (3) chara (plant-like algae).

Emergent (shoreline) plants include cattails, reed canarygrass, and purple loosestrife.

Rooted-floating plants include water lily, spatterdock, and watershield. These are normally found in shallow water that is 4 to 5 feet deep.

Submersed plants are rooted in the bottom sediments and grow up through the water. They include plants such as pondweeds, coontail, and Eurasian watermilfoil.

Free-floating plants, such as duckweed and watermeal, are the smallest flowering plants and can reproduce rapidly.



Herbicide Timing

Late spring is usually the best time to apply aquatic herbicides. Weeds are young and actively growing, and the risk of oxygen depletion is less.

If you wait until late summer to treat the pond, vegetation is usually extensive and thick. This can be a problem because all of the dead and decaying plants consume oxygen from the water, and this can lead to a fish kill. So if you must apply an aquatic herbicide later in the summer, treat only a portion of the pond at any one time.

When applied properly, aquatic herbicides will provide safe and effective control. When using any aquatic herbicide, always read and follow the label directions. The label may indicate restrictions or waiting periods on the use of treated water.

The goal for pond management is to achieve a balance. Some aquatic vegetation is desirable, so trying to make a natural body of water look like a swimming pool should be avoided.



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