



Aquatic Plant Management

South Carolina Department of Natural Resources

PITHOPHORA ALGAE

Pithophora

Common Name

Cotton-ball Algae/Horsehair Algae

Distribution and Habitat

Pithophora is found statewide but found most commonly from the piedmont eastward throughout the coastal plain. It thrives in shallow ponds with low flow and is often associated with ponds receiving nitrogen and phosphorous enrichment. *Pithophora* may form extensive surface mats during the summer months. This dense and prolific growth often interferes or prevents fishing, irrigation or other utilization of the pond. *Pithophora* is recognized as one of the most difficult and persistent species of aquatic vegetation to control.



Description

Pithophora belongs to the family of filamentous green algae. It may be found growing on the bottom or in dense mats on the surface. This algae is often described as resembling a tangled mass of cotton or wool-like growth which is very coarse to the touch. Under magnification *Pithophora* is composed of irregularly branched filaments usually with numerous swollen spore-like reproductive cells known as akinetes. It may range in color from lime green to a dark greenish brown. The surface mats generally form in warmer weather when gas bubbles, produced by the plant, are trapped within the dense algal growth, causing them to become buoyant. Disturbance of these mats by high wind or heavy rain events may cause them to temporarily sink to the bottom. This often gives a false impression that the growth has “disappeared”, only to have it return to the surface within several days.

Recommended Control Methods

1. Diquat Dibromide
Active Ingredients: Diquat dibromide salts
Product Name: Reward/Weedtrine D/Aqua-Clear
Approximate Cost: \$90.00 - \$100/gal
Application Rates: 1 - 2 gals/surface acre

Application Methods and Control Tips: Early detection and treatment will result in more successful control of *Pithophora*. The bottom growth of this plant will be very difficult to kill. The herbicide must be applied as a spray application to surface mats and should be mixed with enough water to ensure even coverage of the treatment area. Higher rates of the herbicide will be required in areas of dense growth. A non-ionic surfactant such as Ortho 77, Induce, Passage, Quickwet, etc. should be incorporated with the herbicide at a rate of 1/2-2 pints per 50 gallons of mixture. Dibromide should not be applied in muddy water as the herbicide will be inactivated. Additional product directions and precautionary statements are listed on the herbicide container.

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READ AND FOLLOW THE HERBICIDE LABEL.

2. Copper Chelates

Active Ingredients: Elemental Copper

Product Name: Cutrine/Cutrine Plus/K-Tea/Av-70

Application Rates *.50 - 1.0ppm active copper. Rates are based on acre/feet. Refer to herbicide label for determining specific application rates.

*Toxicity of these products to fish and other aquatic life increases when used in waters with low, "soft" water hardness. Do not exceed 0.8ppm. concentrations in water with alkalinity less than 50ppm.

Application Methods and Control Tips: Surface mats should be treated with a spray application. The desired concentration should be mixed with enough water to ensure thorough coverage of the treatment area. Allow one to two weeks if retreatment is necessary. Additional product information and precautionary statements are listed on the herbicide container. **READ AND FOLLOW THE HERBICIDE LABEL.**

Consult your district fisheries biologist for more details concerning use of these products.

3. Dibromide and Chelated Copper:

Increased efficacy may be achieved using these two herbicides in combination at a rate of one part dibromide to two parts copper chelate. This should be conducted following the same application methods described for the use of dibromide.

4. Sterile Grass Carp (White Amur)

Grass carp are not recognized as being an effective alternative for controlling *Pithophora*.

This information is intended for educational purposes only. References to commercial products or trade names is made with the understanding no discrimination is intended of other products which maybe available. Any herbicides recommended herein for the treatment of aquatic vegetation have been registered by the Environmental Protection Agency for use in the manner described. The registration and use of a particular product may change therefore the information provided here may not remain current indefinitely. It is the responsibility of the user to read and follow the manufacturer's label to prevent misuse of the product.



South Carolina Department of Natural Resources
Freshwater Fisheries Section

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