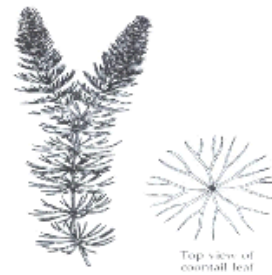


Plants Usually Controlled by Grass Carp

- ◆ Naiad
- ◆ Fanwort
- ◆ Hydrilla
- ◆ Coontail
- ◆ Pondweed (Potomageton)
- ◆ Bladderwort
- ◆ Elodea
- ◆ Chara
- ◆ Parrotfeather



Coontail

Plants Sometimes Controlled by Grass Carp

- ◆ Aquatic Grasses
- ◆ Water Pennywort
- ◆ Eurasian Milfoil
- ◆ Mosquito Fern
- ◆ Watercress
- ◆ Duckweed (Small fish 4-5 " only)
- ◆ Watermeal (when stocked at rate of 50+ fish per acre)



Eurasian Milfoil

Plants Usually Not Controlled by Grass Carp

- ◆ Cattails
- ◆ Bulrushes
- ◆ Smartweed
- ◆ Water Lilies
- ◆ Lotus
- ◆ Rushes
- ◆ Filamentous Algae
- ◆ Eelgrass (*Vallisneria*)
- ◆ Stonewort (*Nitella*)
- ◆ Watershield (*Brasenia*)
- ◆ Reeds (*Phragmites*)



Smartweed

Grass Carp for Pond Weed Control



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For more information on this and other pond problems, consult the WVU Extension aquaculture web site:
www.wvu.edu/~agexten/aquaculture



Grass Carp (Triploid White Amur)

Grass Carp & Common Carp (koi, Israeli carp) are different fish. Triploid grass carp are sterile and do not root in the pond bottom; like cattle they will eat preferred plants first and then graze less desirable plants. They may not control plants like filamentous algae (especially if the water is cold).

Grass Carp seem to prefer plants growing below the water surface, tender plants rooted to pond bottom.

Common carp, on the other hand, may be effective against duckweed and filamentous algae, but must be stocked at a much higher rate, and will root in the pond bottom. They can reproduce, but largemouth bass in the pond will control the rate of reproduction.



Common Carp (Israeli carp, Koi carp)

Stocking Grass Carp

Spring stocking is best as the water warms up and the plants begin to grow.

Fall stocking works too. Fish will get a good start if the water is warm and plants are abundant.

Summer stocking is difficult. Handling and transporting fish during hot weather may reduce fish survival.

Stock fish large enough to escape predation by bass, large catfish, etc. Fish 10 inches or larger are commonly stocked.

It may take a season or two for the fish to control aquatic weeds in your pond.

Grass carp do not eat much in cool water and are not recommended for weed problems in spring water.

For more rapid results consider integrating grass carp with other control methods. For example, stock fish following the application of herbicide or mechanical removal of vegetation.

Recommended Stocking Rates for Recreational Ponds

- ◆ 20-40% Vegetative Cover = 5 fish/acre
- ◆ 40-60% Vegetative Cover = 10 fish/acre
- ◆ 60% or more Cover = 20 fish/acre

If too few fish are stocked, weeds will not be controlled. Allow for some mortality.

How to Get Grass Carp

To obtain an import permit for grass carp, contact your local DNR fisheries biologist (304 558-2771) and/or consult with one of the suppliers listed below.

Supplier	Delivery	Contact
<i>Divergent Natural Interests</i> Frederick D. Hays PO Box 241 Elkview, WV 25071 (304) 548-7117 E-mail: sustainableresources@hotmail.com	Truck	Fred
<i>Rainbow Head Farms</i> Mike Nardella 309 John Street Clarksburg, WV 26301 304 783-5025	Truck	Mike
<i>Farley's Fish Farm</i> 17771 Hwy 18 Cash, AR 72421 1-800-247-2615	Truck Feb-Oct	Merline
<i>Fish Wagon</i> 6940 Dawson Lane Harrisburg, AR 72432 1-800-643-8439 www.fishwagon.com E-mail: info@fishwagon.com	Truck	Stephanie or Debbie
<i>Hopper-Stephens Hatcheries Inc.</i> 989 Johnson Rd Lonoke, AR 72086 (501)676-2435/676-7776	Air Freight or Truck	Janet
<i>Keo Fish Farms- AK Aquatics, Inc.</i> PO Box 166 (Hwy 165 N) Keo, AR 72083	Air Freight	Martha