

Table 1. Treatment Response of Common Aquatic Plants to Registered Herbicides and Grass Carp

Aquatic Group & vegetation	Aquatic Herbicide ¹												Grass Carp ⁹
	Copper & copper complexes - algecides	copper complexes - herbicides	2,4-D	diquat	endothall	glyphosate	floridone	triclopyr	imazapyr	imazamox	sodium carbonate peroxy hydrate	penoxsulam	
Algae													
planktonic	E		P	P	G ²	P	P				G ⁶		
filamentous	E		P	G	G ² -P ³	P	P				G ⁶		F
<i>Chara/Nitella</i>	E		P	P	G ² -P ³	P	P						G
Floating Plants													
azolla	P		F	G		F	E					E	
duckweeds	P		F	G	P	P	E		P			E	F
salvinia	P		G	G		G	E			E		E	P
water hyacinth	P	G ⁴	E	E		G	E	E	E	E		E	P
watermeal	P		F	F			G					G	P
water lettuce	P	G ⁴	F	E		G	G	G	E			E	
Submerged plants													
coontail	P	G ⁴	G	E	E		E						F-G
elodea	P	G ⁴		E	F		E					G	E
fanwort	P	P	F	G	F		E					G	F
hydrilla	P	G ⁴		G	G		E			G		E	E
milfoils	P	G ⁴	E	E	E		G	E		G		E	F
naiads	P	G ⁴	F	E	E		E					G	E
parrotfeather	P	P	E	E	E		E	G	G ⁵	G		G	G
pondweeds	P	G ⁴	P	G	E		E		G ⁵	E		G	E

¹ E = Excellent control, G = Good control, F = Fair control, P = Poor control, blank = indicates unknown or no response

² Hydrothol formulations

³ Aquathol formulations

⁴ specific copper complexes only - e.g. Nautique, Komeen (see label).

⁵ spray only emergent portion

⁶ best on blue-green algae (higher concentrations for green algae)

⁷ E for sedge

⁸ F for rush

⁹ Permit required from Texas Parks and Wildlife Department

	Copper & copper complexes algicides											
	Copper complexes herbicides											
	2,4-D											
	diquat											
	endothall											
	glyphosate											
	fluridone											
	triclopyr											
	imazapyr											
	imazamox											
	Sodium carbonate peroxy hydrate											
	Penoxsulam											
Aquatic Group & vegetation	Aquatic Herbicide ¹											Grass Carp
Emergent Plants												
alders	P		E	F	P	E	P	E	E			
alligatorweed			F	P		G	F	E	E	G		
arrowhead	P		E	G	G	E	E		E	E		
buttonbrush	P		F	F	P	G	P		G			
cattails	P		F	G	P	E	F		E	E		
common reed	P		F	F		E	F		E	G		
frogbit		F ⁴	E	E		F		E	E	E		
pickerelweed		F ⁴	G	G		F	P	G	E	E		
sedges & rushes	P		F	F		G	P		E ⁷ F ⁸			G
slender spikerush	P			G		P	G		F			
smartweed	P	F ⁴	E	F		E	F	E	E	E		G
southern watergrass	P		P			E	G		E			
waterlilies	P		E	P		G	E	G	G	G		G
water pennywort	P		G	G		G	P	E	E			G
water primrose	P		E	F	P	E	F	E	E	E		
watershield	P		E	P		G	G		E	G		
willows	P		E	F	P	E	P	E	E			

PRODUCT

Copper
 Endothall
 Hydrothol
 2,4-D
 Fluridone
 Diquat
 Glyphosate
 Triclopyr
 Imazapyr
 Imazamox
 Penoxsulam

COMMONLY AVAILABLE TRADE NAMES

Copper Sulfate, Cutrine, Cutrine Plus, K-Tea, Komeen, Captain, Algae Pro, Agritec, Cleargate, Nautique
 Aquathol, Aquathol K, Aquathol Super K
 Hydrothol 191
 Navigate, WeedRhap
 Sonar, Avast
 Reward, Weedtrine D
 Rodeo, Aquamaster, AquaNeat, Eraser AQ, Touchdown Pro
 Renovate 3
 Habitat (for use by licenced aquatic applicators only)
 Clearcast
 Galleon

Sodium Carbonate
Peroxyhydrate

Green Clean, PAK 27, Phycomycin

**Table 2. Aquatic Vegetation Herbicide Control Water Use Restriction¹
(number of days after treatment before use in private waters only)**

Common name	Human Use	Livestock			Irrigation	
	Drinking	Swimming	Fish	Watering	Turf	Crops
copper sulfate ²	0	0	0	0	0	0
copper complexes	0	0	0	0	0	0
2,4-D	*	*	*	*	*	*
diquat	2-3	0	0	1-3 ³	2-3	5
endothall ⁴	7-25	1	0	7-25	7-25	7-25
glyphosate ⁵	0	0	0	0	0	0
fluridone ⁶	0	0	0	0	7-30	7-30
triclopyr	#	0	0	0	0 ⁷	120 ⁸
imazapyr	@	0	0	0	120 ⁹	120 ⁹
SCP	0	0	0	0	0	0

¹ Aquatic vegetation control can result in period of low dissolved oxygen which can stress and/or kill fish. It is best to treat most aquatic vegetation early in the growing season, when the plant is rapidly growing. Treating small areas (e.g. 1/4) of pond at a time at 10-14 day intervals will allow for decomposition usually without causing an oxygen depletion.

² If water is for drinking, the elemental copper concentration should not exceed 1.0 ppm (i.e. 4.0 pp. copper sulfate).

³ Depending on formulation - **Read label.**

⁴ Length of use restriction for endothall varies with concentration used. **Read label.**

⁵ Do not apply within 0.5 mile of a functioning potable water intake.

⁶ Do not apply within 0.25 mile of a functioning potable water intake.

⁷ No restriction on irrigating established grasses but **do not harvest hay for 14 days after application. Read label.**

⁸ Or until non-detectable concentrations in immunoassay analysis.

* Water restrictions on 2,4-D vary with formulation, rate, and time of year. **Read label.**

Minimum setback distances from potable water intakes required and laboratory tests to determine < 0.4 ppm for use. **Read label.**

@ > 1/2 mile from potable water intake

⁹ or until <1.0 ppb

Additional information is available through the following references and websites

Aquatic Vegetation Identification Card Deck \$12.00 includes postage. Produced by Dr. Michael P. Masser - Publication Number B6095

Contact - Distribution and Supply, Texas A&M University
P.O. Box 1209, Bryan, TX 77806
979/845-6573

Web Sites - <aquaplant.tamu.edu> <srac.tamu.edu> <wildlife.tamu.edu> <agrilifebookstore.org>

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