

**2010**  
**MnDNR Estimated Aquatic Herbicide/Algaecide Costs**

	Cost per Unit	Manufacturers Recommended Application Rate SEE NOTE BELOW	Cost per Surface Acre
<b>Endothal Compounds:</b>			
Aquathol Super K Granular	\$ 234.95 / 10 lb pail	13.2 lbs/acre ft @ 3 ppm & 4 ft. avg. depth	\$ 1,240.80
Hydrothol 191 Granular			
- Submerged vegetation control	\$ 174.95 / 40 lbs	81 lbs/acre ft @ 1.5 ppm & 4 ft. avg. depth	\$ 1,415.88
- Chara/filamentous algae control			
Hydrothol 191 (liquid)		<b>APPLICATION ONLY BY MINNESOTA LICENSED COMMERCIAL APPLICATOR</b>	
<b>Diquat Dibromide Compounds:</b>			
Reward		<b>APPLICATION ONLY BY MINNESOTA LICENSED COMMERCIAL APPLICATOR</b>	
<b>2,4-D Compounds:</b>			
Aquacide	\$ 295.00 / 50 lbs	100 lbs/sa	\$ 590.00
Navigate	\$ 191.00 / 50 lbs	100-200 lbs/sa	\$ 382-764.00
<b>Other Compounds:</b>			
Aquashade	\$ 59.95 / gal	1 gal/acre foot	\$ 60.00
Shore-Klear (emergent plant control only)	\$ 74.85 / 1 qt.	n/a	n/a

	Cost per Unit	Type of Nuisance, Manufacturers Recommended Application rate (per surface acre) (rates assume 4 foot average depth)				Cost per Surface Acre
		Plankton Algae	Filamentous Algae	Chara	Snails & Leeches	
<b>Copper Compounds:</b>						
Copper Sulfate	\$ 97.00 / 50 lbs	5 lbs/sa	10 lbs/sa	16 lbs/sa	10 lbs/acre ft	\$ 9.70 to 31.00
Citrine Plus (granular)	\$ 107.00 / 30 lbs	n/a	60 lbs/sa	60 lbs/sa	n/a	\$ 172.00/sa
Citrine Plus (liquid)	\$ 40.00 / gal	*1.2	*1.2	*2.4	n/a	\$ 51.60/sa @ 1.2 gal \$ 103.20/sa @ 2.4 gal

\* Assuming the area is 1 acre, avg. depth is 2 ft.

n/a – not included on label.

NOTE - Application rate can often be reduced according to nuisance severity and plant sensitivity.

- All prices are sampled Minnesota retail, 2009. Price will vary according to individual retailer.

- This list of estimated costs does not constitute endorsement of a particular product and is intended to serve only as a guide.

**Aquatic Plant Control with MnDNR Approved Herbicides**

Plant (Common Name) Scientific Name	Aquathol K (liquid)	Aquathol Granular	Hydrothol 191 Liquid	Hydrothol 191 Granular	Reward*	Aquacide	Aqua-Kleen	Copper Sulfate	Cutrine Plus (granular)	Cutrine Plus (liquid)	Komeen	Aquashade	Rodeo
Arrowhead <i>Sagittaria</i> spp.	N	N	N	N	N	P	P	-	-	-	-	N	C
Bladderwort <i>Utricularia</i> spp.	N	N	N	N	C	P	N	-	-	-	-	N	N
Burreed <i>Sparganium</i> spp.	C	C	N	N	N	N	N	-	-	-	-	N	C
Bushy Pondweed Naiad <i>Najas</i> spp.	C	C	C	C	C	P	P	-	-	-	P	N	N
Canada Waterweed <i>Elodea Canadensis</i>	N	N	C	C	C	N	N	-	-	-	-	N	N
Cattail <i>Typha latifolia</i>	N	N	N	N	C	N	N	-	-	-	-	N	C
Claspingleaf Pondweed <i>Potamogeton richardsonii</i>	P	P	C	C	N	N	N	-	-	-	-	N	N
Coontail <i>Ceratophyllum demersum</i>	C	C	C	C	C	P	C	-	-	-	-	N	N
Curlyleaf Pondweed <i>P. crispus</i>	C	C	C	C	C	N	N	-	-	-	-	N	N
Duckweed <i>Lemna</i> spp. <i>Spirodela</i> spp.	N	N	P	P	P	P	P	-	-	-	-	N	N
Flatstem Pondweed <i>P. zosteriformis</i>	C	C	C	C	C	N	N	-	-	-	-	N	N
Floating-leaf Pondweed <i>P. natavis</i>	C	C	C	C	C	N	N	-	-	-	-	N	N
Hardstem Bulrush <i>Scirpus acutus</i>	N	N	N	N	N	P	P	-	-	-	-	N	N
Largeleaf Pondweed <i>P. amplifolius</i>	P	P	C	C	P	N	N	-	-	-	-	N	N
Narrowleaf Pondweed <i>Potamogeton</i> spp.	P	P	C	C	C	N	N	-	-	-	-	N	N
Robbins Pondweed <i>P. robbinsii</i>	N	N	C	C	N	N	N	-	-	-	-	N	N
Sago Pondweed <i>P. pectinatus</i>	C	C	C	C	C	N	N	-	-	C	-	N	N
Variable Pondweed <i>P. gramineus</i>	N	N	C	C	C	N	N	-	-	-	-	N	N
Watermeal <i>Wolffia</i> spp.	N	N	P	P	N	N	N	-	-	-	-	N	N
Watermilfoil <i>Myriophyllum</i> spp.	C	C	C	C	C	C	C	-	-	-	-	N	N
Water Shield <i>Brasenia schreberi</i>	N	N	N	N	N	N	P	-	-	-	-	N	P
Whitestem Pondweed <i>P. praelongus</i>	P	P	C	C	C	N	N	-	-	-	-	N	N
White Waterlily <i>Nymphaea tuberosa</i>	N	N	N	N	N	P	P	-	-	-	-	N	C
Wild Celery <i>Vallisneria Americana</i>	N	N	C	C	N	P	N	-	-	-	-	N	N
Wild Rice <i>Zizania aquatica</i>	N	N	N	N	N	N	N	-	-	-	-	N	C
Yellow Lotus <i>Nelumbo lutea</i>	(Protected species control is prohibited)												
Yellow Waterlily <i>Nuphar variegatum</i>	N	N	N	N	N	P	P	-	-	-	-	N	C
Algae													
Filamentous	-	-	C	C	P	-	-	C	C	C	C	-	-
Plankton	-	-	C	C	-	-	-	C	C	C	C	-	-
Chara	-	-	P	C	N	-	-	C	C	C	N	-	-
Snails/Leeches (swimmer's itch)	-	-	-	-	-	-	-	C	-	-	-	-	-

Abbreviations: C = Control; P = Partial; N = No control; - = Not appropriate. \*Hydrothol 191 Liquid and Reward may be applied only by a MN Licensed Commercial Applicator.

This list of chemicals does not constitute endorsement of a particular product and is intended to serve only as a guide.