

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

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CONTROL OF ELODEA WITH ENDOTHOL

American Elodea (*Elodea canadensis*) is a common waterweed inhabiting freshwater ponds. Elodea has been sold for years as an aquatic plant for fish aquaria and goldfish ponds. Waterfowl have a low preference for Elodea and the plant is generally considered to be a nuisance in fishing ponds. Heavy growths of Elodea result in excessive cover for forage fish in bass and bluegill ponds often creating populations of stunted bluegill.

The vegetative portions of Elodea often survive over winter in ponds that do not freeze. Elodea readily propagates from vegetative buds produced on terminal ends of shoots which overwinter on the pond bottom and sprout in spring. Flowers are produced on female plants during spring and summer, but seeds are rarely produced due to a scarcity of male plants and flowers. The plant also disseminates by plant fragmentation. Elodea will survive and grow in a completely floating state, but grows more vigorously when rooted.

Control of Elodea has been difficult requiring higher herbicide application rates for eradication than many other nuisance aquatic plants. A field trial was conducted in a 5 surface acre Shasta County farm pond to test the effectiveness of a low application rate of the dimethylalkylamine salt of endothol. The pond was heavily infested with Elodea after an attempt to control the Elodea by pond fertilization failed. Application of the herbicide was made during July. Contact aquatic herbicides are normally applied during April through July when aquatic plants are actively growing.

The pond was divided in half and one application of Pennwalt 1/ Hydrothol 47 granular was applied to each half of the pond. The application rate was .5 parts per million of Hydrothol 47 granular. The Elodea began to die and sink to the pond bottom within 4 or 5 days after application. A twelve day waiting period was allowed between applications to prevent a fish kill due to dissolved oxygen depletion resulting from the decaying Elodea. Fish kills can also result if an entire pond is treated all at once at rates in excess of .3 parts per million of Hydrothol 47 granular.

1/ Use of the brand name does not imply endorsement.

An essentially complete kill of Elodea was achieved during the field trial. The cost of the control was \$69.00 per surface acre and required 500 pounds of herbicide @ .65¢/lb., plus \$20.00 shipping cost.

Before recommending aquatic herbicides:

1. Review Environmental Memo CA-1 (Rev. 1).
2. Be sure of the proper identification of the aquatic plant involved.
3. Consult SCS Biologist or County Agricultural Commissioner.

This technical note was prepared by David Patterson, area biologist, Red Bluff, California.

Wendell Miller
WENDELL MILLER
State Biologist