Dear Club Member;

The following is a report prepared by Robert L. Johnson of Cornell regarding Aquatic Weed Control.

The following report is in response to my visit to Lakes Rippowam, Oscaleta, and Waccabuc on June 6, 1970.

I believe it would be safe to say from my observations and the comments of the land owners present at the discussion, that your aquatic weed problem at present is in a tolerable state. Likewise it is safe to say that with the increased load and use of the lake system the quatic [sic] weed problem will also increase. An example of this will probably show up around the boat basin at the west end of Lake Oscaleta in the form of Myriophyllum (Water Milfoil).

Your major consideration should be to control the present weed population at a tolerable level and at the same time prevent further spreading of weed growth. I have listed four possible methods of controlling weed growth in your lakes. I want to stress that all of these are control measures and not eradication measures. Eradication of the large weeds would only increase your problems; but you can go a long way in controlling these weeds without a problem.

The "working" of lakes it summer in the form of a greenish or brown color in the water is a microscopic algae "bloom", As long as you have an excess of nutrients in the water you will obtain these "blooms" which can be controlled by copper sulfate. This I believe has been used in your lake system.

The actual cause of your problem, the enrichment of the lake by nitrogen and phosphorous, is a hard one to solve. You have made a good. start in urging the land owners to use low phosphate laundry products. This should be encouraged to the fullest. In your particular lake system approximately 70% of the phosphates entering the system come from laundry detergents. To prevent further enrichment, any method of limiting the amount of nutrients entering the lakes, or the silting and filling in of the lake system should, of course, be considered.

Methods of Controlling Weed Growth

(1) Harvesting of Weed Growths

Preferably harvest by hand, pulling and/or raking the weeds to eliminate the root system. Cutting off the weeds will provide a temporary relief (i.e. cutting your lawn).The cut plants may produce more growth than uncut ones. Remove harvested weeds from the water to prevent regrowth and aid in removing nutrients.

(2) Dredging of Shallow Weeded Areas:

Dredging would eliminate shallow water weed species and provide temporary relief until a deep water species invaded. The benefits are two fold here in that you remove the weed species and the nutrient rich sediment. You are, in effect, reversing the process of lake ageing by nutrient enrichment and filling in.

(3) Winter draw Down:

This would entail lowering the lake level about six feed for at least one month during the winter. This would expose the plant and root system thereby killing the weed.

(4) Chemical Treatment:

Generally, chemicals must be applied yearly to the areas where control is desired. Specific chemicals for specific weeds may be necessary.

Comments

The above methods are listed in order of preference. The first two methods should be considered for the majority of the lakes where weed control is desired. The third and fourth methods are more drastic control measures and should be used only when the first two will not work.

I recommend that the lake front owners who are willing to harvest and dredge their respective dock and swimming areas be encouraged to do so. Care should be taken not to eliminate all the weeds. It would be advisable to set aside one-fourth of the shore line in unpopulated areas to remain “weedy”.

Lowering the lake level during the winter should also be considered. If Truesdale Lake is an example of this method, then you should evaluate their results. The fact that the lakes are at the same elevation and the outlets shallow is not an insurmountable problem. For example, you could close an outlet so that water could not come back into the lake and then pump water over the closure out of the lake.

Use of chemical control in your situation should not be ruled out entirely. Chemicals could be used safely, for example, in the boat basin referred to earlier. If the weeds in this area are, or become, offensive, and they cannot be controlled by harvesting, they may be treated chemically.

Chemical Treatment

(1) Identify weed and use correct chemical.

(2) Obtain a permit to treat the lakes.

(3) Read the label.

(4) Take the necessary safety precautions as specified on the label.

(5) Apply only the recommended amount.

(6) Prevent use of the water for as long as specified on the label.

Chemicals Recommended

Aquatic Weed	Chemical
Water Milfoil	2, 4-D Granular (100 lbs/acre)
Water Lily	
Water Milfoi.l	
Potamogetons	Diquat (.5 PPM)*
Most other weeds	

---

*PPM = parts per million

Diquat - 10 day waiting period before use.

2,4-D = Check label, if label doesn't specify a waiting period, you can test the water by applying it to rung tomato plants. If 2,4-D is present, the plant will wilt and die.

RESULTS OF WEED SURVEY
LAKE RIPPOWAM, OSCALETA, AND WACCABUC

	Scientific Name	Common Name
	Anacharis	Elodea
	Lemna	Duckweed
* ##	Myriophyllum	Water Milfoil
	Nuphar	Spatterdock (yellow lily
	Nymphaea	White Water Lily
* ##	Potamogeton amplifolius	----------
* ##	Potamogeton robbinsii	----------
	Sagittaria	Arrowhead
	Scirpus	Bulrush
	Typhs	Cattail
*	Vallisneria americams	Wild Celery or Edlgrass

*Major Weeds ## Problem Weeds