

# USING AVAILABLE TOOLS

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**T**REATMENT of submersed aquatics is done by one of the following tools: (1) Research—knowledge is a tool provided by research to guide us toward our goal of proper vegetation management; (2) Biological, (3) Chemical, and (4) Equipment.

Research is the prime factor of our survival. The weed problems and areas are known. As we become better informed citizens and learn to restrict our importations of noxious flora and fauna, research will provide us with the necessary tools to survive and master our environment.

Biological tools presently available range from *Marisa* snails to species of the carp family which feed upon submersed aquatics to the *Agasicles*, n.sp. beetles feeding on alligator weed. The use of biological tools is still largely in the hands of Federal and state research agencies seeking more data prior to full scale introduction.

Wholesale importation and use in the United States by well meaning, but perhaps uniformed civic lake and waterway associations of biological organisms could produce disastrous results. It is urged, therefore, that the public obtain council with their state and Federal agencies prior to purchasing any biological control agents.

In the case of herbicides, we need to overcome the image of the skull and cross-bones of past decades and begin to light a candle rather than continue to curse the darkness.

The term herbicide should be stressed to overcome public misinformation of pollution in our environment.

Today, aquatic herbicides are commercially available in either granular or liquid formulations. Thickening agents are rapidly becoming a useful tool for the applicator to work under more adverse con-

ditions with greater safety. Granular formulations are particularly useful on marginal aquatic problems along shorelines. And in specific cases for whole lakes where the granular formulation control rate is based upon surface acres rather than a depth factor. The weed species being combated and the locale determine the herbicide to choose.

Liquid formulations offer more rapid weed control and in many cases are less expensive to apply. From an applicators view the liquid form's ability to disperse often enables his to achieve control in inaccessible areas.

**Equipment**—I use the term equipment rather than mechanical control since the control of noxious weeds is attained only when the plants are contacted by a hyacinth bucket, mower blade, or sprayed by a herbicide. Therefore, in essence anything mechanical is merely a carrier to bring about control.

In the aquatic field, application control equipment is unique, in the sense that there are few, if any firms presently producing tools specifically for aquatic use. To qualify this statement, there are known firms producing drag lines and aquatic harvesting mowers, but almost nonexistent are firms which produce a packaged aquatic herbicide application unit.

The aquatic applicator of necessity must research and develop his own equipment to treat specific weeds in specific locales. Many units now in use represent years of trial and error and a great deal of expense.

The candle has been lit and with the cooperation and coordination of all segments of the industry and the public we can regain usage of our lakes and rivers—our 'Wilderness Lost.'



Price: "Methods will be forthcoming to regain usage of our lakes and rivers."