

An Aquatic Application Service

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Since 1924, when the first lake was treated commercially with a herbicide, the chemical industry has been endeavoring to estimate the size and magnitude of the aquatic market. At first, only the Fish and Game Agencies were interested in the potential of aquatic weed control as a tool of fisheries management, and as the usage of these compounds increased other agencies became concerned with the effects of these compounds on water quality and potability. The States, in order to control the use of these materials, required either licensing or application for permission to treat from either the State Board of Health or from the Water Commission under whose jurisdiction the water is controlled. The question of how much money a lake and pond owner is willing to spend to rid his body of water of noxious vegetation has been asked repeatedly by the industry. Even if we were to consider the U. S. Department of Agriculture figures then there are 1,800,000 farm ponds in the U. S. There are no known parameters of how many of these ponds would need aquatic weed control. Pennsalt spends countless dollars and man hours, developing and testing new compounds to determine their effectiveness, toxicity and residues. Once these compounds have been screened by us, they are made available to cooperating agencies for further testing and screening. This data provides the necessary background to establishing registration and labelling of a compound. At present, an additional procedure has been required of all compounds prior to registration: Animal feeding and progeny studies. These studies are paid for by the corporation and a good estimated cost would be approximately \$150,000.00. After screening and labelling, the success of a compound rests in the hands of the lake and pond owner. The lake and pond refers the types of questions — what type of vegetation, what chemical and how much of it do I use, and how much will it cost — to state and local government extension services. Next the lake and pond owner must file with his State Health or Fish and Game offices for permission to use an aquatic herbicide. Upon receipt of an application permit form, the

owner is confronted with additional problems — pond measurements and watershed jurisdictions. At this point, many owners have reached the conclusion that possibly it might pay them to hire someone to handle all phases of the job.

To assist lake and pond owners, the Pennsalt Chemical Corporation organized its Aquatic Applying Service in December of 1963. The reasons for creating the Applying Service were: to provide aquatic weed control that was not only successful, but reasonable in cost; and to assist lake and pond owners in all phases of lake and pond management. Realizing that the Service would have to reflect the chemical industry's attitude, meetings were held with the various manufacturers of aquatic herbicides to determine their feelings towards such an organization. The reaction was very favorable.

The area to be covered by the Service was the Mid-Atlantic States: Maryland, Delaware, Pennsylvania, New York, New Jersey, and Connecticut. The various state agencies and water commissions in this area were informed of the Service and its functions. The Service stressed that on any aquatic weed control project the best material available would be used and properly applied, and also, if the material failed to achieve the desired effects, the lake would be retreated at no additional expense to the owner.

There are no Dunn & Bradstreet reports available for lake associations; therefore, the work had to be contracted on good faith. However, the Service provided each lake association with an agreement which, in actuality, was authorization from the lake association to proceed with the program. Included in this agreement were the type and kind of weed to be controlled and the areas of the lake to be treated with a specific rate of application of a named herbicide.

To facilitate application, in addition to Service-owned boats, helicopters were rented from New Jersey Helicopter Airways, Trenton, New Jersey. These helicopters were outfitted with either liquid or granular dispersing equipment,

depending on the type of material to be utilized.

The Service had to meet all state and local government agency requirements, either by filing for permission to treat or by being licensed to operate in that state. In the area in which the Service was equipped to work, five states required permits and one state required licensing.

In 1964, the Aquatic Applying Service was active in four states: New Jersey, Pennsylvania, Maryland, and Connecticut. All the aquatic herbicides available on the market were used on some project. As a rule, these materials produced the desired results; however, there were two instances in which retreatment was necessary.

After reviewing this past year's activities, it is felt that some definite conclusions can be made with regard to the performance and acceptance of the Aquatic Applying Service. In general, the public acceptance of the Service exceeded

our expectations. Many associations were referred to us by friends made while treating other lakes. With regard to performance, all the materials seemed to function as required. In using the helicopter, we had no difficulty in applying either type of material, granular or liquid. There was no shoreline damage from applying liquid materials, which not only speaks highly of the use of the helicopter as a tool for aquatic application, but also of the materials, whose dust or volatility might have caused some damage. When the Service was organized, rumors were heard that the Service would affect other commercial applicators. We feel that we did not interfere with the service provided by others. It must be remembered that commercial applicators do not, in general, have the equipment capable of doing larger acreages. We are convinced that the need for our Service has been established, and we look forward to the challenge of the future.