UNITED STATES GOLF ASSOCIATION
GREEN SECTION
WESTERN OFFICE

P.O. Box 567 Garden Grove, California Phone KEllogg 2-2935

WM. H. BENGEYFIELD
Western Director

• Western Turfletter •

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GREEN SECTION SUBSCRIBER SERVICE
FOR
EMERGENCY ASSISTANCE

No one can predict when or where turf difficulties may arise this summer. Nevertheless, emergency assistance is available to Green Section Subscribers should it ever be needed.

Due to travel commitments, one may not always be able to reach the Western Green Section Office at the above telephone number. In this case and if assistance is needed, please call JEfferson 7-8694, Garden Grove, California. Mrs. M. Siegel, Green Section Secretary will have a complete itinerary of staff travels and will be happy to pass along this information.

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A Q U A T I C W E E D S

U N S I G H T L Y A N D U N N E C E S S A R Y

When is a golf course pond more than a pond or water hazard? Answer: When it is covered with algae or surrouneded by cattails, bulrishes and other aquatic weeds. Under these conditions it becomes an eyesore as well as a golf hazard. Today there are chemicals (some old, some new) that enable anyone to check water weeds easily and effectively.

A New Material For Algae and Aquatic Weeds:

Possibly the newest aquatic herbicide available is one containing endothal -- a chemical long used by agricultural weed control scientists. Within four or five days after application, treated ponds become completely clear as the weeds seem to disintegrate and sink to the bottom. No waste removal problem is encountered. Although concentrations of 1 to 5 parts per million are normally needed to check weeds, fish populations have been found safe in concentrations up to 100 parts per million. Animal and human tolerance is considerable higher. More than this, the endothal in the product dissipates very rapidly in the water and the manufacturer claims the water is completely safe for any purpose it was normally used for a week after treatment.

A New Material For Algae and Aquatic Weeds: (Cont'd)

Endothal has a broad spectrum of aquatic weed control. It is available in granular or liquid form. The granular type is suggested for spot treatments or specific areas because of its slow diffusion rate. The liquid preparation is more for surface weeds and algae covering large areas.

From a cost standpoint, the material is somewhere between sodium arsenite and 2,4-D plus 2,4,5-T preparations. For example , a half acre pond averaging 4-feet in depth would cost between $35.00 to $75.00 for materials, depending on concentration needed.

Sodium Arsenite for Water Weeds and Algae:

Liquid sodium arsenite is the best known and probably the most widely used of all aquatic herbicides. It is one of the cheapest materials and most effective if used properly. During warm summer months, 4 parts per million will kill even the most dense growths of submersed aquatic plants in both hard and soft water. If weeds are not too dense, a 2.5 parts per million concentration will give generally good results.

A convenient formula may be used to determine how much liquid sodium arsenite will be required to obtain so many "parts per million":

Acre feet x 2.7 x parts per million ÷ 4 = gals. of liquid sodium arsenite to use.

Example: A lake having 5 surface acres and average depth of 3 1/2 feet is to be treated at 5 parts per million.

5 acres x 3.5 feet = 17.5 acres.
17.5 acres x 2.7 x 5 ppm ÷ 4 = 59.5 or 60 gals. of liquid sodium arsenite.

Water from treated ponds should be left undisturbed for at least three days before being used.

2,4-D and 2,4,5-T and Amino-triazole for Weeds:

For aquatic plants which have leaf surfaces above the water (such as cattails, bulrush, willows, etc.), 2,4-D and 2,4,5-T have been widely used. They are best applied in oil carriers such as kerosene for better penetration of those plants having a waxy covering: Because there are a number of additives used in 2,4-D and 2,4,5-T preparations, the directions of each manufacturer must be closely followed. Pellet forms of 2,4-D have also been developed for effective underwater weed control. However, costs of treating water weeds with these products is still relatively high is used in concentrations to control a broad spectrum of weeds.

Amino-triazole has been found excellent on emergent aquatic plants. Five pounds of 50% Amino-triazole wettable powder in 100 gals. of water is effective. Two applications will probably be necessary - about one month apart. Use a wetting agent for wetting waxy leaves. Soak well.

Copper Sulfate, Delrad and Phygon XL for Algae:

Copper Sulfate is cheap and has been widely used for pond scum control. It requires 8.3 pounds of copper sulfate per million gals. of water to check most floating algae. This is a 1 ppm concentration. Research does indicate an accumulation of copper in the bottom mud of ponds where it has been used over a long period.

Copper Sulfate, Delrad and Phygon XL for Algae: (Cont'd)

For special algae problems two additional products are now available. They are Delrad and Phygon XL. These materials are non-poisonous and control some species of algae that other herbicides do not control. Manufacturer's directions should be followed.

Additional Information:

The best time for aquatic weed control is during the spring or early summer. Weeds are then young and growing rapidly. Since most of the weed killers are contact herbicides, they must be applied directly to the vegetation.

When vegetation is very dense and fish are present, care must be taken to avoid fish loss through too rapid decomposition of the treated vegetation. Under these circumstances, it is best to treat 1/3 of the pond area at a time and at one week intervals.

But these are minor points to remember. The major point is that ponds and water hazards need no longer be eyesores and poorly groomed areas on your golf course. Chemicals are on hand for complete aquatic weed control. They have a place in your total operation.

NEW FOUR YEAR COURSE OFFERED IN "PARK ADMINISTRATION"

Dr. Richard W. Harris, Chariman of the Department of Landscape Horticulture of the University of California, Davis, California recently announced a new four year course in "Park Administration".

Park and public grounds administration is becoming an increasingly important field as urbanization spreads and park and recreation areas are more intensively used.

The Park Administration major offers a thorough training in landscape horticulture including soils, irrigation, entomology, plant pathology, turfgrass culture, arboriculture, and landscape plant identification and ecology. In addition to basic courses in botany, chemistry, physics and the social sciences, training is given in several other fields such as public administration, city and regional planning and landscape architecture.

Interested persons should contact: Department of Landscape Horticulture
University of California
Davis, California

DATES TO REMEMBER:

August 1, 1961 ------ U. S. Department of Agriculture Turfgrass Field Day. Plant Industry Station, Beltsville, Maryland. Dr. Felix V. Juska, Chairman.

September 27, 28 and 29, 1961 ------ Northwest Turfgrass Conference, Washington State University, Pullman, Washington. Dr. Patterson, Chairman.

October 2 and 3, 1961 ------ Utah-Idaho Turfgrass Conference. Idaho Falls Golf Course, Idaho Falls, Idaho. Mr. J. W. Richardson and Mr. George Orullian, Co-Chairmen.

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We need fewer philosophies and more philosophers.

Frank Romer

Jim Kollett
Fri-July 21

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