

UNITED STATES GOLF ASSOCIATION
GREEN SECTION

NORTHEASTERN OFFICE

College of Agriculture

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THE ARCHITECT -- OPEN WATER -- AND YOU

Golf course architects are clever. There is a nine-hole course in New Braunfels, Texas, where the architect (who must have lost sleep many nights figuring it out) used the Guadalupe River as a hazard on six of the course's nine holes. The result is beautiful, but even for Texas that is really utilizing water to its fullest extent as a course hazard. In the Northeast, where we have much more water, the architect has used it freely and often as a hazard. It is the superintendent, however, who is left with the problem of maintaining this hazard as it was originally planned -- a stretch of open water. In some cases the clever architect's water hazard turns into something entirely different -- a swamp hazard.

The problem of controlling aquatic vegetation is no mean task even for a grass man. Nevertheless, this spring you have a chance to catch up with the golf course architect, nature, and her aquatic plants. Sodium arsenite is the most effective material for doing this job. It will control the rooted submerged plants as well as the floating ones. Waxy-leaved plants, such as water lilies, are not harmed by it. Sodium arsenite also has a wide safety range for fish, requiring more than 12 parts per million (ppm) before serious fish mortality results. Most weed control work requires between 5 and 10 ppm.

"How much should I use?" is always one of the first questions. The chart on the following page gives the answer. By knowing the width and the average depth of the area to be treated you can easily determine the gallons of liquid sodium arsenite for each hundred feet of shoreline. Your success in controlling aquatic weeds depends largely on an even distribution of the chemical over an area of known dimensions. The most important single idea is that of average depth.

A single application of sodium arsenite, using your regular spray equipment, should control all rooted vegetation for one summer. The spraying should be done this spring when the plants are still young and growing vigorously. The weeds will be practically eliminated by re-treating the area for two or three consecutive years.

Pond scum or algae is another common problem. Three pounds of copper sulfate crystals to a thousand square feet should give effective control. The crystals may be distributed by hand over the area affected. On thick scums

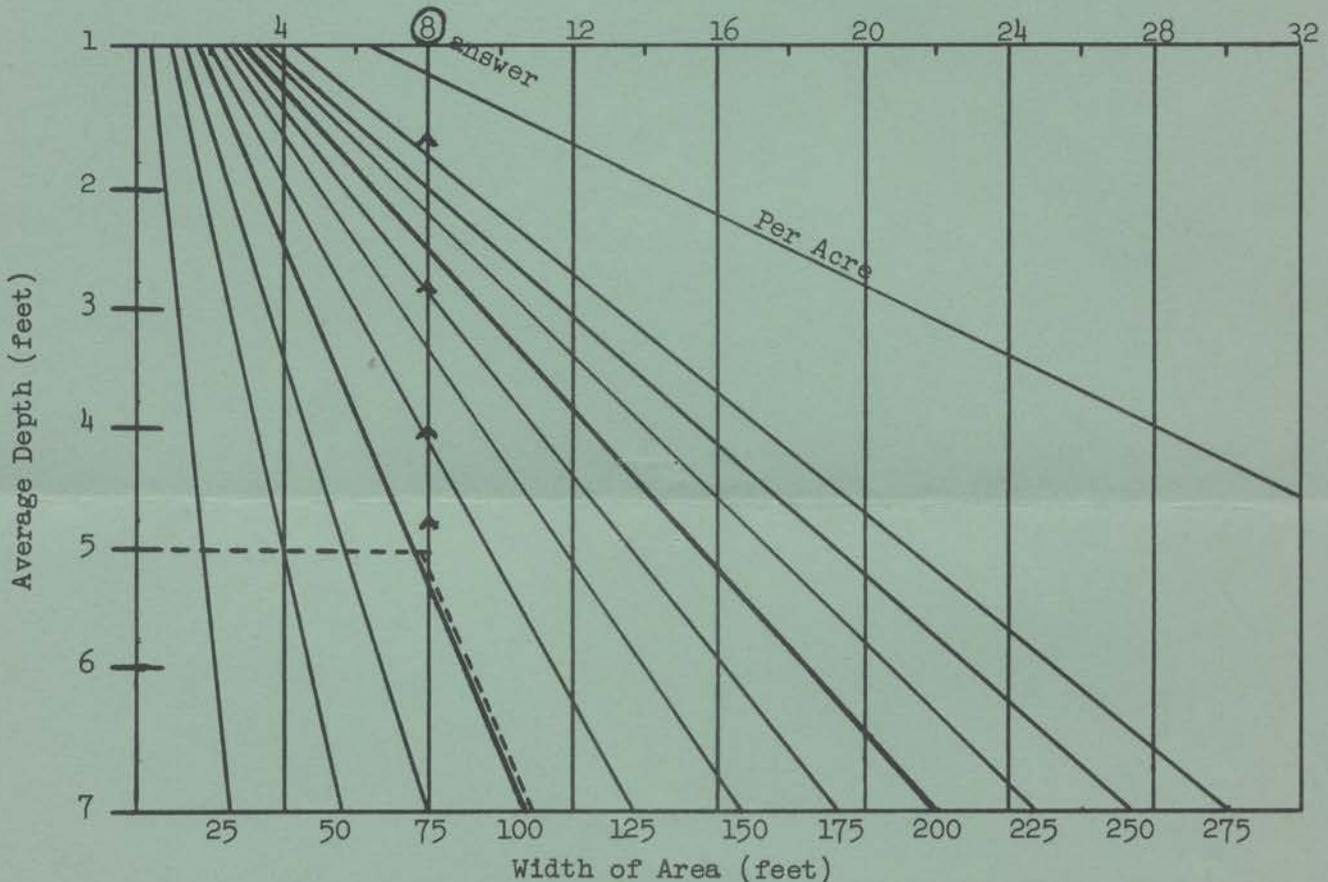
which threaten an entire pond, sodium arsenite is just as, if not more, effective than copper sulfate crystals. The rates indicated on the chart should give excellent results.

Cattails, water lilies and other waxy plants may be eradicated by using 2,4-D in ester form with kerosene as a carrier. Water may be used as a carrier as it is much more convenient but is not quite so effective as kerosene. Use two pounds of actual 2,4-D in 25 gallons of kerosene or water (i.e., 5 pints of 40% 2,4-D liquid to 25 gallons of carrier). This 25-gallon solution should cover a quarter acre. Of this group, cattails are the most difficult to eradicate. Undoubtedly treatments for several consecutive years will be required to control this weed effectively.

Some commercial preparations of 2,4-D are made expressly for treating waxy-coated plants. Their names will be furnished on request.

"Operation Water Weeds" should get under way in late April or May. Open up on these aquatic plants at that time and you'll give the membership some open water to shoot over this season.

SODIUM ARSENITE DOSAGE CHART *
Gallons Required per 100 ft. of Shoreline



Example: Average depth of pond is 5 ft. (see left hand margin).
Width of pond area is 100 ft. (see base of chart). Number of
gallons sodium arsenite required per 100 ft. of shoreline =
8 gals. (top of chart).

* Taken from a paper by Mr. Kenneth M. Mackenthun, Public Health Biologist,
State Board of Health, Madison, Wisconsin.

YOUR QUESTIONS -- OUR ANSWERS

The February Northeastern Turfletter invited readers to send in questions. Those of general interest will appear from time to time in future Turfletters. Please help to make this feature a successful one by sending in your question(s) now.

Wild Onions in Turf

Question--Why do wild onions grow in the rough right up to the edge of the fairway and not on the fairway? (North Carolina)

Answer--Higher rates of fertilizer and lime on fairways strengthen the permanent grasses and thus cause greater competition for the onions. More frequent fairway mowing tends to weaken the wild onion by reducing the good-manufacturing parts -- the leaf surfaces. Less food means smaller bulbs for next year and a control measure is affected.

Chicken Manure vs. Fertilizer

Question--What is your opinion as to the value of chicken manure compared to processed sewage fertilizers for use on fairways? (Rhode Island)

Answer--The use of chicken manure is not too valuable as a substitute for processed organic fertilizers. The nitrogen content of chicken manure is 1% to 2% generally as compared to 5% to 6% for organic sludge materials. You would have to use three to six times as much chicken manure to do the job, and that would cause quite another problem.

NORTHEASTERN REGION EXPANDS

The Northeastern Region of the Green Section now offers Regional Turf Service to USGA member clubs in the states of New York, New Jersey, Connecticut, Massachusetts, Rhode Island, Vermont, New Hampshire and Maine. The first three states mentioned comprised the Northeastern Region last year; the remaining states were added this spring.

Regional Turf Service was introduced to the new states in meetings in Rhode Island and Massachusetts in March.

The Northeastern Turfletter is published six times yearly. We plan to send the first three issues to the green committee chairman and superintendent of all USGA member clubs in the New England states. Only clubs subscribing to Regional Turf Service will receive all six of our 1955 issues. To insure no delays fill out and mail your Regional Turf Service application today. We would like very much to work with you for better turf for better golf.

The Northeastern office is indebted to Bill Bengeyfield, the newest member of the Green Section staff, for most of the material used in this issue of your Turfletter.

Northeastern Turfletter

USGA GREEN SECTION

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