UNITED STATES GOLF ASSOCIATION
Green Section--Western Office
P. O. BOX 241 DAVIS, CALIFORNIA TELEPHONE DAVIS 2492

Western Turfletter

CHARLES G. WILSON, *Western Director*

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TURF IN THE FIELD

How Can We Economize? -- All Western States

Recently the following thoughts have been repeatedly brought out in discussions with USGA member club officials.

"Why does our course require fourteen maintenance men while the course down the road gets by with three laborers?"

"How is it that our cost of operation runs twice as high as the Country Club?"

"We must economize. This year they threw out the slots, so there is no more easy money available for maintenance."

These are only a few of the many statements made by conscientious club officials who are trying to do a better job for their respective courses. Certainly all of them are indicative of a wholehearted desire on the part of management to provide less expensive golfing facilities. Frankly, we are encouraged by such questions because they show a definite trend toward operating the turf management end of golf on a business like basis. However, we are concerned with budget cuts that do not take into consideration the grasses growth requirements. It is our belief that without a good turf cover you do not have a good golf course, and that budget cuts that result in poorer turf will eventually result in less income from the disatisfied membership.

The Green Sections Stand

To those clubs who are sincerely interested in economy the Green Section believes that it is possible to reduce expenditures while at the same time maintaining turf quality. Although each course will differ in its approach to this problem, the following sensible economy suggestions have merit and have worked in actual practice. In subsequent issues we will publish more true economy measures.

1. Elimination of unnecessary bunkers: - We estimate that approximately 75 hours per year are expended on the maintenance of an average size well maintained trap where golf is played as a year around game. Often a rough grass swale provides a better test for the scratch player while making the game easier for the average golfer. Certainly "dub traps" should be eliminated for increased enjoyment.

2. Elimination of raised teeing mounds: - Esthetically speaking, 3-level tees may be wonderful. From the standpoint of economical maintenance the hand labor involved can reach tremendous proportions. Flat tees with gentle bank slopes permit mechanized mowing with fairway units at a sensible cost saving to the club.

3. Idle labor: - We may surprise the reader on this one, because we are talking about the time wasted by the maintenance crew in waiting for the golfer to tee off or hole out. At the average private club we estimate that a six man crew wastes approximately 1,000 hours per year in just being courteous. If the player would wait (average of five minutes per round) or continue on oblivious to the noise of the tractor or mower, that major renovation of #1 green this fall could be accomplished at no extra cost to the club.

The number of traps and amount of hand maintenance work involved should help to explain why costs differ from one course to the next.

A Case In Point -- Northern California

Our favorite example of sensible economy relates to the Green Hills C. C., Millbrae, Calif. Through the cooperation of Ted DeTata, superintendent, and Jim Wilson, green chairman, the maintenance budget has been kept within decent proportions while at the same time tremendous strides toward turf improvement have been made. This end has been accomplished by (1) complete mechanization and thus reduction of the maintenance crew, (2) elimination of unnecessary bunkers, and (3) a planned approach to work schedules. Money saved on labor reduction and costly hand maintenance of sand traps has been put to good use in fertilizing and renovating fairways, experimenting with new turf grasses, and establishing higher wage scales for really competent help.

RESEARCH ACTIVITIES

As mentioned in the August 1953 issue of your Western Turfletter, local Western research is growing into a major field of investigation. We also should be aware of the fact that worthwhile investigations are in progress on a nation-wide scale, and that findings from other sections can be used to good advantage on our Western golf courses. One of the more recent and notable developments concerns the control of white clover in fairways and greens as reported by Dr. William H. Daniel, Agronomy Department, Purdue University, Lafayette, Indiana. We are taking the liberty of abstracting Dr. Daniel's recent article, "You Can Control Clover", which appeared in the October 1952 issue of the MIDWEST TURF NEWS AND RESEARCH.

Clover Control with 2,4,5-T -- Purdue

"Credit is given to Chicago area golf course superintendents who in 1951 observed that a mixture of 2,4,5-T and 2,4-D controlled both clover and chickweed. Fall treatments gave the best results.

2,4,5-T applied on fairways of the Purdue Golf Course in late August and September of 1952 gave complete control of clover within a period of three weeks. The action of 2,4,5-T is not rapid, and damage is more severe on dry soil to heavily matted bentgrass turf. June treatments were 95% successful.

Current recommendations suggest that 1-pound of the amine form of actual 2,4,5-T acid equivalent per acre be used as a fall treatment on fairways. Where broadleaf weeds are present 2,4-D may be added at the rate of 1/2 pound 2,4-D acid equivalent to the 2,4,5-T solution.

On an experimental basis only, clubs are encouraged to try a fall treatment of 2,4,5-T at the rate of 1/2-pound per acre to control clover in putting greens. This should not be applied when temperatures are high."

Note: Apparently only an ester form of 2,4,5-T is licensed for sale in California. Due care should be taken to prevent drift and damage to ornamental plantings.

FUNDAMENTALS OF TURF MANAGEMENT

Today, the superintendent must, among other duties, have some knowledge of chemical calculations in turf management. Computing rates of application by means of a moving power sprayer deserves consideration. The following is taken from "Chemical Calculations in Turf Management" by The Marlon Company, 1091 Whalley Ave., New Haven 15, Connecticut.

"The factors involved in applications of solutions with a boom sprayer are:

1. Amount of chemical applied per acre or per 1,000 square feet.
2. Amount of solution applied per acre or per M sq. ft. usually in terms of gallons.
3. Concentration of solution.
4. Output of sprayer, usually in gals. per minute.
5. Width of boom.
6. Rate of travel of sprayer, usually in feet per minute.

Factors 1 to 5 inclusive are usually pre-determined. It is necessary to calculate for No. 6, rate of travel of sprayer, and if the figure derived is not practical because the rate may be too fast or too slow, one or more of the other factors must be changed to bring No. 6 within a practical range."

COMPUTING RATE OF TRAVEL

"One acre contains 43,560 sq. ft. but to compute in even numbers 43,500 sq. ft. will be used for 1 acre. Width of boom is 12 ft. so the first step will be to find the distance the sprayer must travel to cover 43,500 sq. ft. - 43,500 ÷ 12 = 3,625 feet distance sprayer must travel to cover 1 acre. Next step is to find the amount of time in which the sprayer must cover this distance to discharge (example) exactly 100 gallons of water. Sprayer output is 8 gals. per min. So, 100 ÷ 8 = 12.5, it will take 12½ minutes to discharge 100 gallons of water so 3,625 linear feet must be covered in 12½ minutes. 3,625 ÷ 12.5 = 290 feet per minute, the rate sprayer must travel. This problem can also be solved by using the following formula:

$T = \frac{A\ D}{W\ S}$ where T = rate of travel of sprayer in feet per minute, A = area of 1 acre in sq. ft., D = discharge of sprayer in gals. per minute, W = width of boom in feet, and S = amount of solution to apply in one acre. So using the same figures of above example by this formula: $\frac{43,500 \times 8}{12 \times 100}$ - 290.

This equation can be used for any area as long as "A" and "S" correspond; i.e., let "A" equal any area in sq. ft. and let "S" equal amount of solution to apply in that area."

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