

## LOS ANGELES MUNICIPAL GOLF COURSES' PROPAGANDA



You have heard of the fellow who wears his sentiments on his sleeve. William H. Johnson, golf-course manager of the Los Angeles Municipal Golf Courses, wears his on his jeep, and hopes all golfers will heed. The men are, from the left, Ray W. Ditmore, park foreman; Allan G. Macdonald, assistant golf-course manager; and Mr. Johnson.

soil serves no other benefit than to anchor the turf cover. Often the irrigation water available greatly influences soil reaction, and in many instances can be so high in total salts and chlorides as to adversely affect turf growth. This is especially true with bentgrass.

This wide diversity of climatic, soil and water conditions that affect turf growth in the West naturally presents a wide range of problems. Yet our capable

golf-course superintendents can and are growing better turf for the golfer's enjoyment of his game. Better turf is happening because of what he does, rather than in spite of his efforts. Our western golfers are rapidly advancing away from the thought that water and mowing alone will provide good turf. In subsequent issues we shall discuss some of the factors pertaining to turf management that are important in this area.

### THE SUPERINTENDENT'S SECTION

Getting the Oklahoma City Golf and Country Club's golf course in condition for the Amateur Championship was not an easy job. Bob Ervine came to the club as superintendent late in 1951, and the conditions he found were rather discouraging. Greens were layered and thatched and fairways were mediocre.

Bob brought a great deal of experience with him, however, and he knew how to go about the task ahead of him. Bob has held a superintendent's position for more than twenty years. He spent 17 years at The Oaks Country Club and three years at the Indian Hills Country Club, both in Tulsa. His experience and knowledge have

been of value not only to his own club but also to many of his fellow workers and members of the Oklahoma Turf Association. Bob is one of the charter members of that organization and its first president and has been an enthusiastic supporter of turf research efforts at Oklahoma A. & M. College.

He says he needed every bit of his knowledge and experience, as well as some luck and a great deal of help from the Giver of All Good Things to surmount the obstacles that he has encountered in the two years he has been at the Oklahoma City Golf and Country Club.

A considerable amount of remodeling was the first job to be done. Four greens and five tees required rebuilding. The rebuilt greens were planted to a mixture of Arlington (C-1) and Congressional (C-19) bentgrass. Practically all of the sand bunkers on the course were enlarged, reshaped and put into condition for championship play.

In the spring of 1952, Bob drilled his greens to a depth of eight inches, with an ingenious device which was designed and built for the purpose. He drilled  $1\frac{1}{4}$  inch holes on four-inch centers. Holes were then filled with a coarse, granular soil mixture. Such a treatment was decidedly helpful in overcoming the layered condition on the greens. Both in 1952 and in the spring of 1953, combs were used on the putting-green mowers to remove excess grass from the surfaces.

It should be said that Bob was given strong support by Harrison Smith, General Chairman; Kent Hayes, President; C. P. Wendt, Secretary, and Harrell Butler, Professional. The Board of Directors and the membership as a whole displayed their confidence in Bob's ability and made sure that he had the things he needed to do a first-class job.

Some of the trouble that hampered all efforts was beyond human control. Drought contributed to the difficulties. The source of water for the golf-course turf contained a considerable amount of soluble salts. Suddenly, in the late summer of 1952, the salt content of the water became intolerable and the greens were

damaged severely. Bob at this time was convinced that the chemical content of the water was causing the trouble and with the able assistance of Dr. Charles Sarthou, of Oklahoma A. & M. College, made the analyses necessary for proof that this was the trouble. He started by tiling all greens and laying a 6-inch water main connecting city water, thus providing a better source of supply. Then began the slow process of leaching out the accumulated salts by applying large amounts of water, letting the greens dry out thoroughly, then irrigating heavily again. His methods worked and by the spring of 1953 the greens were in remarkably good condition.

When Bob first came he found the aprons around all the greens approximately 75 per cent silver crabgrass (goosegrass), and this was corrected by a continuous spraying of gasoline which left large areas of bare ground. A fair-sized nursery of U-3 bermudagrass had been planted, and this was used to fill in these bare spots.

One would think that all his troubles would be over when the bare spots were sodded, the greens were restored and a supply of good water was available. But drought can be a serious thing. Water supplies in Oklahoma City ran low and the city banned the use of its water supplies for golf courses. Bob says he walked past the lake on the golf course for two days before he realized it had water in it that could be used. A pump was set up and water from the lake was used to keep greens alive until a well could be drilled.

In July, 1953, good rains fell, the water supply in the lake was replenished, fairway turf began to respond to the generous fertilizer applications that had been made, the bare spots where chunks of U-3 bermudagrass sod had been placed began to heal and the course really began to take shape. Ten days before the play began for the Amateur Championship, city water supplies again became available.

The condition of the golf course during this championship was a tribute to

the ability of Bob Ervine. Greens and tees were in fine condition and the fairways were superb. Bob, like many another golf-course superintendent, has enabled his club to present a championship

golf course, groomed to championship standards in spite of obstacles which would have spelled doom had the responsibility of the course been in the hands of a less capable man.

## HIGH SALT CONTENT OF WATER NECESSITATES PERFECT DRAINAGE

The water table has been receding steadily in parts of the western states for the past several years. The soils of this area are generally alkaline and some of them contain quite high amounts of soluble salts, such as chlorides. As the water tables have receded, the water from wells as well as from rivers has become higher in its soluble salt content. Putting greens that once did fairly well under the conditions prevailing at the time they were planted are now becoming poor because salts have begun to accumulate in the soil underlying them.

The accumulation of salts accentuates the necessity for perfect drainage in putting greens irrigated with water of high salt content. If the soil underlying a putting green is porous and water drains through it rapidly, the salt contained in the water will be carried on through the soil and much of it will be carried away as water drains out. However, if the sub-soil does not drain well and water stays in the soil for a long period of time, much of the salt may remain in the soil.

The method of watering which is practiced has much to do with whether or not salt accumulates in the soil. If water is applied frequently and at light rates, the soil is never saturated sufficiently to allow gravitational water, or excess water, to percolate down through the soil and therefore none of the salt is ever leached out. Each irrigation adds a little more salt, the water is used by the plant or it evaporates and salt is left in the soil. On

the other hand, when water is applied in rather large amounts but is applied infrequently, the salt that was left in the soil by the previous irrigation will be washed out and salt will not accumulate nearly so rapidly.

Good drainage and proper watering practices will do much to permit the use of water that would be entirely too salty under the practices of some golf-course superintendents. Infrequent, heavy waterings will tend to prevent the accumulation of salt in the soil. Frequent, light waterings will invite trouble. Not only is more salt accumulated but roots tend to become more shallow and the stress of high salt content becomes even more pronounced.

Where water is salty, good drainage and proper methods of water application are absolutely necessary for the growing of good turf.

This discussion should not be interpreted to mean that light sprinkling should never be practiced. It is necessary in a great many cases to syringe putting greens lightly during the heat of the day in midsummer to prevent wilting. Greens may be lost by neglecting this practice. But putting greens should not be given a small amount of water each night and syringed the next afternoon. They should be wet thoroughly and then except for syringing to prevent wilting in the heat of the day, the soil should be allowed to become nearly dry before more water is applied. A more extensive root system will be built, a healthier turf will result and less water will be required.