

# Postwar Maintenance Picture

**I**N GENERAL, those clubs which enjoyed a favorable position near population centers or could be reached by rail or bus transportation, were fortunate. Play on these courses was quite heavy. Those clubs which were highly mechanized found they were able to maintain their courses with skeleton crews—so bare a skeleton in fact that in prewar years they would have thrown up their hands in despair and declared it impossible.

Staring us in the face insofar as the immediate future is concerned is high-priced labor and for the present a shortage of equipment. The equipment situation may or may not be relieved by next summer. It is not believed that we will again have, at least for a good many years, low-priced labor.

The answer to the postwar maintenance problem lies in golf courses modernized and mechanized. By modernizing, I mean doing away with the steep slope on backs of greens, on bunkers and other hazards. In other words, reconstruction or rebuilding so that you can use a modern power mower on every area of the course. The hand mower, the hand sickle, hand scythe will prove too expensive tools to use to any great extent. Many golf courses constructed in recent prewar years have been designed with machine maintenance in mind. It is believed that courses so constructed are more popular with the average golfer than the old type.

With that in mind, let us consider the equipment that is available at the present time, that was available before the war or has been developed during the war. One of the chief items of expense is the mowing of the fairway and rough areas. Years ago the 3-gang mower was used, later supplanted by a 5-gang, the latter effecting better than a 50 percent saving in mowing time. These mowers were horse or tractor drawn; the 5-gangs being mostly tractor drawn, and had a cutting speed not to exceed 3 or 4 miles per hour. The 5-gang mower was succeeded by the 7-gang and one or two companies introduced 9-gang mowers. The cutting speed was increased up to 6 and 7 miles per hour, with the result that cutting cost and cutting time were cut another 50 percent. During the war, in answer to the need for cutting the large acreage of airports, still higher speed motors were developed. In discussing the application of

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these mowers to golf courses with a few of the dealers, the general consensus seems to be that this higher speed of cutting is not applicable to fairway mowing, and that in the immediate future no great or outstanding improvements in fairway mowing machinery can be expected. The higher speeds tend to create a washboard effect: this has been troublesome in the past. In all likelihood, there will be some increase in speed and some improvements.

## High-speed Rough Mowing

These mowing machines which have been designed for airport work, however, are suitable for mowing rough areas. Many courses have been using fairway mowers set high for mowing rough, or in some instances, mowers designed especially for cutting rough. These new airport mowers are capable of much greater speed than mowers used heretofore and should result in a great saving in cutting costs for roughs and in better maintained rough areas. One company has advertised a mower with cutting speeds up to 25 miles per hour. It is very questionable, if this great a speed can be maintained on the average golf course due to the nature of the terrain, necessity of dodging trees and shrub beds, the condition of the rough areas, etc., and the nature of cut obtained. However, it is believed that cutting speeds of from 10 to 12 miles per hour can be maintained with satisfactory results. I have been informed that the mowers of the future will be lighter and more durable, taking advantage of the new alloys and new metals developed during the war.

Leaving the fairway mower and rough mowers designed for large areas, our selection of mowing units for the smaller areas is almost unlimited. Many fairway mowing units are so constructed that it is possible to operate them in gangs of 3, 5, 7, or 9 as the case may be, disconnecting the units in a minute's time. One of the greatest labor savers in the mowing field and one which was developed a few years prior to the war and on which a great many improvements will doubtless be made in the future, is the so-called

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"Triplex" mower. These mowers completely fill the gap between the tractor mower of the 3-gang or more type and the hand mower. In fact, it is possible to mow practically all areas with these "Triplex" mowers that can be mowed with hand mowers. At our Skokie Playfield course at Winnetka, we purchased one of these mowers in 1937 and eliminated all hand mowing with the exception of approximately one hour's work per week in the vicinity of the clubhouse and tennis courts.

As regards golf course tractors the room for choice is great, including the regular golf course tractor and the light-weight farm type tractor. It is possible to purchase many attachments for these tractors, and they can be put to so many different uses.

As regards the selection of the farm type tractor, I think it is well to heed a farmer's advice on this. Briefly summarized, it was this: Most of the present-day tractors are good and their performance is satisfactory. What is more important, consider the attachments which you contemplate using, study those. Buy your tractor on the basis of the attachments you are going to use.

#### Attachment Use Increased

One very useful attachment and not too expensive is a light loader, similar to the loaders used on contractors' bulldozers, but of lighter construction, designed originally, I believe, to load manure. It is adaptable to many uses, loading topsoil, rubbish, sand, gravel, etc. Another attachment is the snow plow, besides serving in its intended capacity, it makes an excellent bulldozer for use in filling ditches, piling topsoil, etc.

Another tool which has been somewhat revolutionary, though not used to any great extent is a sand trap rake. One style of this rake was developed by the superintendent at the Bob-O-Link GC in the Chicago district. Visiting a country club in the Chicago district the other day, I noted another sand trap rake which was built at the course, by the greenkeeper, and which he claims is superior to the one built by the superintendent at Bob-O-Link. This greenkeeper stated that by using the rake it was possible to recondition the traps in from 12 to 15 hours as against 38 to 44 by the hand method previously employed.

Still another small tool, which has met with considerable favor and was introduced a year ago or so prior to the war, is designed to lift ball holes from the putting green surface. Selling for \$7.00 it would pay for itself in one week.

The power sprayer, which has become almost an essential item in first class

course maintenance, will in all probability be improved. Its use on the golf course will be increased with the new insecticides, fungicides and herbicides which will be available.

Probably the most revolutionary of the new insecticides is D. D. T. With this, it should be possible to eliminate the common house fly and mosquito from the clubrooms, garbage disposal areas, dumps, etc. Insecticide people tell us it will not replace the pyrethrum and rotenone insecticides. We secured a 5 percent solution of D. D. T.; painted it on the screens at the clubhouse porch. I can testify that it worked. For a week or so afterwards we swept flies from the floors and there was a noticeable absence of flies in the clubhouse after using it. It is a wonderful product and one that answers a long-felt need.

Another revolutionary discovery from the standpoint of golf course maintenance and one which is of interest to everyone, all park men particularly, who are interested in maintaining weed free turf is the discovery of the use of growth regulating substances as herbicides and particularly the compound (2,4-D) 2, 4-Dichlorophenoxyacetic acid.

This 2,4-D compound promises to be the answer to the greenkeeper's prayer. With this it apparently is possible to eliminate three of the most obnoxious weeds on the golf course—the dandelion, plantain, and buckhorn. Favorable results have been obtained with clover and lawn pennyworth. It is also effective on such weeds as wild mustard, wild onion, purslane, ragweed, burdock, yarrow and Canada thistle. And with no apparent injury to the blue grass lawn, though bent grasses are very seriously injured and quite frequently killed by this chemical. Clover control on putting greens has been accomplished by the use of this chemical at approximately one-half the regular rate, repeating the treatment two or three times.

I inspected two golf courses last summer where test treatments had been made in the spring on certain fairways and rough areas. From the results of this one treatment there was approximately a 100 percent kill insofar as dandelion and plantain were concerned. Check areas left nearby were full of strong, healthy dandelions, the rosettes in some instances being 10 to 12 inches in diameter. In the treated areas all that remained were a few dried and shriveled leaves and the hole where the dandelion tap root once flourished.

#### 2,4-D Results

We purchased 40 pounds of Weedanol, at a cost of \$52.00—a cost of approximately  
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how good an employee is, he cannot turn out a good shop job if he is cold and damp and has poor tools to work with. I believe the simple requirements can be supplied by the average golf club if a program is instituted and incorporated in the budget on a 5-year plan. The efficient operation of golf course equipment begins in the repair shop.

*GSA Convention paper.*

## Postwar Maintenance

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mately \$13.00 per acre for the chemical; this is the 2,4-D in Carbowax, and used it on our No. 1 fairway at Skokie Playfield. Commencing at the green and working towards the tee we sprayed the compound at the rate of 10 pounds per acre in 200 gallons of water. We were advised after treating approximately one-third of the fairway to make the application at the same rate but to use only 100 gallons of water per acre. Approximately three-fourths of the fairway was treated on September 5th, the balance on September 17th, rainy weather and other work preventing us from completing the treatment before that date. An inspection on November 1st, showed approximately 90 percent of the dandelion and plantain eliminated.

As an experiment, we treated clover patches on a couple of the greens, mixing a solution at the rate of one-half ounce of Weedanol to 1½ gallons of water, spraying the clover patches to a sufficient degree to make certain that all the clover was thoroughly wetted. Two treatments were given, one on September 17th, the second on October 3rd. A considerable damage to the clover was noticeable immediately following the first treatment with no damage to the bent. At the time the second treatment was applied the clover showed some evidence of recovery. An inspection on November 1st showed that there was approximately a 100 percent kill of the clover leaves and approximately a 70 to 80 percent of the runners with considerable burning of the bent grass on the green.

Note the difference in rates—in one case the rate applies to pure 2,4-D, in the other the rate for the manufactured product.

We sprayed a burdock in the early summer using Weedone. The burdock at the time of spraying was approximately 3 feet tall. It took this chemical all summer to kill the burdock; the battle was interesting to watch.

Our experiments last summer show that 2,4-D is sure death to poison ivy and Canada thistle.

*March, 1946*

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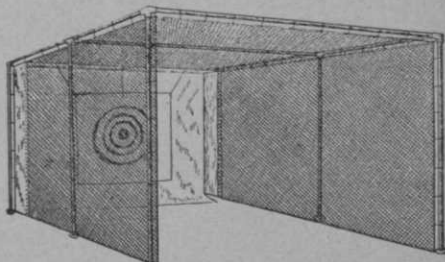


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