GREENKEEPERS HAVE

I KNOW some readers are going to disagree with me on some of the points I will mention as the greenkeeper's ten most important jobs. But if there is diversity of opinion concerning them, there is much more chance

of their being thrashed out properly when criticism is constructive. Some may think I am leaving out some of the most important points, but the following are those I would name as the ten important jobs for the greenkeeper:

1. The greenkeeper has to seed, or more often, the greenkeeper has to re-seed. That is when the job becomes important. When we think of the tons of grass seeds that are purchased by golf clubs each year, and then find out how much good turf has actually been produced from those seeds, we realize seeding must be important. Let's listen in on a conversation between a chairman and his greenkeeper:

Chairman: "Bill, just how much grass seed do we require to seed the bare spots on those two fairways? Some of those places were pretty bad last summer."

Bill: "It's not how much seed we want. It's how much topdressing and fertilizer we need to make the seed grow. If we are to spend \$400 on those two fairways, what we want to do is to use \$100 for seed and the other \$300 for something to insure that seed's growth."

In any seeding or re-seeding program we may contemplate, let us always make sure that we give the seed a 50-50 chance to make good turf by making soil conditions such that everything else being equal the maximum number of seeds will get a good start.

2. The next important job I list is topdressing. Probably most us topdress the greens more to level and true up the putting surface than anything else. What do we topdress greens with? Sand or any old dirt? No. We use a compost or topdressing of some mixed materials that are to improve the structure of the soil, to make conditions better for the plants to grow. If good manure can be obtained at the right price, compost it about two years with a good topsoil, and enough hard sand so that the finished product, which is to be incorporated on the green, is as near to a sandy loam as it is possible to get.

3. The next job is watering, probably the most important job of all. So much depends on the watering of the greens. Often during the playing season the green-committee or some of the players complain that greens are too hard; they can't stop a ball on them. Sometimes the green is too hard, but very often it is the player's own fault—the shot was not played properly. However, whether the player enters into the picture or not, the fact remains that greens must have water. How much or how little depends on the human element, the man who applies that water.

I believe in working out a watering program to use just what the plants need. It is not a question of how much water we can apply in a certain time, but the minimum the plants require to keep them healthy. One sees so much unhealthy turf and even loss from over-watering, especially where heavy soils exist and where adequate surface drainage has not been provided, and very often no under-drainage, especially on the greens; so that the need for a minimum scale of watering is almost always with us.

The successful greenkeeper will worry more about a correct surface-and-underdrainage on his greens, than he will about getting water on them. If, and after greens begin to suffer from lack of moisture, it is an easy matter to put the sprinklers on, but after he has over-watered and it starts to rain, it is another question to get rid of surplus water.

I have studied fairway watering a good deal, and have been in close touch with greenkeepers who have used it, and I believe there again it has to be closely watched, and the minimum amount used.

4. To my mind rolling is a necessary evil. We should lightly roll after seeding just to make sure all the seeds are down far enough in the seed bed. Some-

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times in the spring we should press the soil lightly around the plants where heaving, as a result of freezing and thawing, has taken place; but other than that, rolling is not important. We depend on the winter, the snow and the frosts particularly to improve the structure of our soils. Why roll it and undo all the good the winter has done by packing it tight again. Too heavy rolling of fairways in the spring before the soil is right has done much unnecessary damage.

5. Now mowing. Let's look at the machines we use for the cutting of the grass. First we have a special mower for the greens, then most of us have one for tees, perhaps approaches, then we have lawn mowers, bank machines or toppers, whatever you like to call them. Then come the fairway units and last but not least the hay mower or tall rough mower. In addition to those, some of us will have power mowers. Mowing must be an important job or we would not invest so much money in machinery to do it.

How close do you have to cut your greens is a frequent question. When I am asked that, my answer is 5/16 in. if I can get away with it. It is true the creeping bents and the velvets will stand closer cutting than 5/16 in., but most of the other grasses including Poa annua will suffer if constantly cut at, say 1/4 in. Many of us are induced to cut even closer than 1/4 in. by the pro or sometimes the players, especially the low scorers, but after we get down under ¼ in, most of the grasses will suffer and be rendered more susceptible to disease than if kept at ¼ in. or higher. Much depends on the greens mower being kept keen and properly adjusted, for a machine that is unevenly adjusted can easily give the impression that it is not cutting low enough although actually it is cutting so low it is tearing, so that the turf suffers.

In line with rough mowing in relation to play, clubs who are staging major tournaments often contemplate some fertilization of the rough in places where emphasis is desired on a straight shot. I believe we should at least give this some consideration.

6. Fertilization is the next job on the calendar. I am not so far off the mark

when I mention this point in connection with the rough. In addition to making conditions more advantageous for the straight player or placing a premium on the straight shot, a little fertilization will help eliminate many obnoxious weeds in the rough which might encroach on the fairway.

Any fertilization program either on greens, tees or fairways should be preceded by an examination of the soil. Tests should be made for acidity, also for phosphorous and potassium. Then we can apply the right plant food in proper quantities of which the soil may lack.

A well planned fairway fertilization program should be drawn up a year ahead. The greenkeeper then knows how to proceed. If the soil is acid and lime is to be used I believe it should be applied some months ahead of the fertilizer; for instance lime could be applied in late fall or during the winter and the fertilizer job begun in the spring. I believe that especially with the fertilizer, any quantity over 350 pounds to the acre should be applied in two or more applications.

Fertilizing the greens is a different problem. There we have to study the grasses more. Where Poa annua predominates in the spring, as it does on many courses, especially in our section, we try to study that in connection with the fertilizer program. For instance, if we want to check or retard the growth of the Poa, we will wait for spring feeding until the bents begin to grow, then fertilize so the bents will at least have an even chance with the Poa. If, however, we have to cater to the Poa as some of us do, the procedure will be different. I believe those clubs that are fortunate enough to have greens of creeping bent, one of the good strains of Metropolitan or Washington, have less trouble with fertilizing and topdressing than those of us who are plugging along with mixed grasses. However, this is a debatable point.

Applying fungicide, although a small job. is most important. I believe most greenkeepers start off the season with a lot of good intentions. No doubt we all think prevention is better and cheaper than the cure. How near we come to complete prevention is something else. I'm afraid there is a good deal of guess work and luck, weather studying and barometer reading, and even then old mother nature has got us licked sometimes.

7. The next job is keeping the teeing grounds in condition. It is very noticeable on almost any course, except where the greenkeeper, for his own benefit, has managed to sell the idea of larger tees to the green-committee, and they in turn have gotten extra appropriations for enlarging them. On tees which are large enough so that the markers can be changed every day for a week, or better still, two weeks without using the same place twice, the maintenance is comparatively small. A practice of topdressing the tees almost every week, using a small quantity of seed in the topdressing, is a wise procedure.

Someone has said. "If officials or greencommittees would always remember that each new sand trap is an added yearly expenditure, there might be less of them." But that is beside the point, our job is to take care of them. The average golfer will have no reason for kicking, if there are about three inches of sand in the traps, kept reasonably loose so that a ball can be exploded out when necessary, and raked often enough so that at no time will there be many large holes or footprints, creating unnecessary hazards. Banks and edges must be kept trimmed with a scyth or sickle, so that the grass is no higher than the rough has to be kept.

8. We come now to one of the most important jobs of the greenkeeper, "care of machinery." A golf course is a plant manufacturing golf as a pleasure for club members, and the standard of the plant's product will be just as good as the machines which manufacture those products. The factory has to keep its machinery upto-date or its manufactured or finished goods will not be marketable.

If golf clubs would imitate the factories and create a depreciation or sinking fund, so that new machinery costs would be written off over a three or four year period, the greenkeeper would have a chance to keep his machinery up-to-date.

It is true that at small clubs a mechanic cannot always be kept, but there is generally one man among the crew who is mechanically inclined and, assisted by supervision and instruction from the greenkeeper (who is supposed to be engineer, plumber, builder, roadmaker, and a host of other experts in one), should be able to take care of repairs and overhauls during the winter. This is saving money for the club as well as keeping one man off community relief.

9. Now we pass on to the nursery whether it be a turf nursery, a tree nursery, or a soil nursery. Maybe some of us have all three. If so, the job becomes more important. First though, let us talk about the turf nursery. Some years ago I had a plot of ground 20 ft. x 20 ft. where I tried out fertilizers, fungicides, and insecticides. This was useful, but there comes a day when some of my greens passed out and I didn't have any turf to re-sod them. I realized it was time I woke up and started a turf nurserv. I started off with 15,000 sq. ft. and seeded it to south German mixed bent. It takes a lot of time to keep this nursery in shape with mowing, weeding, topdressing, treating for brown patch, etc.

If your nursery is in A-1 shape all ready to be transferred to the greens, nothing ever seems to happen to the greens; but just as soon as the nursery is weedy and not fit for anything, suddenly overnight two or three greens pass out.

With skimpy budgets, reduced staffs, and so much work waiting to be done, it seems sometimes as if it would be impossible to devote any time to the nursery; but if we are not prepared to keep it in shape, we will be wasting the club's money if we ever start one.

10. Selection, training and use of labor is just about the greenkeeper's most important job. If the workers are willing and loyal they can be easily trained to do any job on the course. The average club member and many green-chairmen think that all there is to mowing the greens, for instance, is plenty of strength and the less brain the better. This is not so. A man takes a pride in his work, especially when he is given a specific job to do such as mowing a certain number of greens and given to understand that it is up to him to have them looking slick. Most men will try their very best in various ways to bring this about. Many course workers can be seen taking weeds out of the greens after or while they are mowing them, but power-mowers and routine are apt to eliminate the fine touch of the green crew.

Pride in his work is often reflected in the tractor men. Give them their own machine and hold them responsible for it, and more often than not this machine will alThis view from tee on short hole at the Eastman Durand municipal course, Rochester, N. Y., is another example of the great improvement being made in muny course architecture throughout the country. Many of our municipal and fee courses now offer as sporty a layout as can be found anywhere.



ways look well groomed and every flaw promptly reported so that it takes care of the maximum amount of work each and every day. If you get a good man, treat him well; and if he does a good job, give him credit for it. Create in him a sense of responsibility and it will repay you many times. Pay him the maximum rate for that type of labor in the district, and a little more if he is worth it. Don't forget that two loyal satisfied men are worth more than three or four dissatisfied trouble makers.

Happy is the greenkeeper who has a green-chairman who understands the job of maintaining a golf course and who can answer the criticisms of the members about the conditions of the greens or some part of the golf course. In this connection the greenkeeper should keep his chairman well posted as to the general routine that might give the members cause for complaint.

WITH times improving, what have you done in soliciting the renewal of memberships of former members?

Get after them. They probably still prefer your club just as they did when they joined and before tough times got them. Work out an adjustment of their old accounts, if necessary, and you'll have them back as staunch and enthusiastic members if they've survived the depression. Wise Managers on Guard Against Athlete's Foot Epidemics

AGAIN it is the bad season for athlete's foot, that always irritating and stubborn, and frequently quite dangerous skin disease.

Managers must guard against occurence of the disease among their members because it's the manager who is bound to be seriously criticized when there are cases of this preventable fungus malady.

Footbath solutions placed in rubber trays outside the showers and emptied into the shower compartments as a disinfectant measure at the close of the day are the most reliable, inexpensive means of preventing athlete's foot epidemics at golf clubs, according to managers who have had long and perplexing experience with complaints of athlete's foot.

The preventive solutions also should be used in cleansing wooden bath slippers if these are used. However, paper bath slippers has almost altogether displaced the wooden sandals at first class clubs.

WHEN making piping installations, don't take off turf with the turf edges even with the edge of the trench. Leave a shoulder of dirt. It makes neat replacement of the sod easier.