

# SAND GREENS

By WHITNEY GOIT

## Pointers on Building Putting Surfaces in Areas Where Turf Is Impractical

THE construction of an artificial green is an infinitely tougher assignment than writing about one. An artificial green is and can be, nothing more than a makeshift utilized for lack of something better. It supplies the need for putting surface where for one reason or another, grass cannot be employed. It should therefore be approached on that basis, viz.: as the best thing under the governing circumstances and the players should accept it with that high degree of philosophy engendered by the game of golf.

There are, however, greens and greens, some artificial greens are sad, some are close to grass greens in putting and approaching qualities. It is, therefore, the aim of this article to demonstrate how to make the best of the situation. I might say here, that in doing this it is not so much a matter of expense as it is of attention and willingness to do the work. The difference in expense between a good sand green and a poor one is negligible.

Properly built sand greens probably still offer the best solution to this problem. I have seen several substitutes for sand but have never seen it excel for all-around purposes. It has its drawbacks, such as necessity for upkeep, oiling the ball, soiling players' hands but as a putting surface within the reach of small clubs it is the closest thing to grass.

Cotton seed hulls have been used for greens, notably in Texas, but have never attained wide use even in the cotton country. Where they are used considerable work must be done on the subsoil otherwise vegetation will grow through the cottonseed hull mat and ruin the green. Other substitutes have been tried without great success. We therefore get back to my earlier statement that a properly built sand green is the best. Proper building depends on a number of factors. Not the least of these is location.

### Locating Sand Greens

Place your greens so they are visible to the approaching players. Never locate them unless unavoidable, on top of rising ground because the players cannot see them until they are within a few yards.

This makes the game as played by the golfer on the customary grass green course something entirely different. Most players don't like that difference. Under these circumstances there is no target to play for and even worse is the fact that the invisibility increases throughout the years because the sand is blown and washed to the edges building them still higher.

So when locating a sand green, bear in mind this matter of visibility. Locate it not at the whim of a committee, but where it will be seen when well away. Place it either on ground falling away from the fairway or on the level. It is good in this preliminary work to start backwards and locate the greens first letting the location of the tees follow. On some terrain this may require considerable planning, do that planning before you do any actual work. Once done no matter what a pain in the neck the green may be it is likely to remain, so do it right in the first place so far as you can. Naturally greens may be placed on rising slopes where desirable just as long as the shot for the green is taken into consideration. There is, of course, no objection to a one shot hole across a gully, for example, with green excavated out of the side of one hill and tee built on the side of another. The whole question sums itself up into one of visibility.

### Green Construction

Start with a firm, but not necessarily hard, base, free, of course, of roots, stones and debris. Generally speaking the oil used in the sand, of which more later, will in time put your base in good shape. It tends to firm up a sandy soil and soften a clay soil. It is seldom necessary to screen this base, unless it is cluttered up with stones and roots. The presence or absence of these usually is the determining factor. If they cannot be removed by thorough raking, then you will have to screen since leaving them on the surface of the base would be fatal to a putting surface.

The size of the green is a matter of opinion. I have seen sand greens all the



Properly constructed and maintained, sand greens are the most satisfactory substitute for the putting qualities of turf.

way from 30 feet in diameter to fifty. In this as in all golf course construction, the shot to the green should be taken into consideration and the constructor should be fair to the player. Two shots or three shots to the green will naturally require size accordingly.

Likewise the shape is a matter of opinion. Some clubs employ only round greens, others square greens and others use oblong or irregular types. Again the question can be decided by consideration of the approaching shot.

This brings us to the matter of drainage. Allow at least six inch fall to a 40 or 45 foot green in order to drain surface water quickly after a rain. Occasionally tilling will be required to do the job right. Sometimes a two or three inch pipe from the low point will do the work. If you use a two inch pipe you will find that it does not interfere with play as it is always covered up by sand anyway. You will likely find it desirable to rod this pipe out after a rain. Matters of this kind can only be treated broadly and individual conditions must govern in each instance.

The point I want to make at this juncture is simply that work of this kind, that is on the base, and arrangements for drainage, is always better and more cheaply done during initial construction. It must be done some time in any event. Doing it in the first place is best.

The water coming from the pipe should drain into a sump suitably placed. The end of the pipe must not come to the surface or it would interfere with the mowers so a sump of proper size in the apron of the green, properly covered, will be needed.

A fall of the size specified does not in-

terfere with play as to all intents and purposes the green is level.

Naturally the entrance to pipe or tile should be suitably screened.

### Consistency of Surface

It is, I think, admitted by most players on sand greens, at least those of long experience, that the majority of greens have too much sand. A pitched shot to such a green fluffs up the sand like a small bomb and the player finds his ball nicely nesting like an egg. Marks of all kinds are evident, putting is difficult especially for a grass green player. It is quite possible with a little experiment to get a sand green surface to offer just a nice degree of resistance to the putted ball, similar to the resistance offered by grass. That is the ideal putting surface.

With the correct slope determined, which is easily done by the aid of pegs at 8 to 10 foot intervals, and the base excavated accordingly, roll it to firm it up and drag with steel shod drags to cut off the high places and fill up the low. A bedknife from a thirty inch fairway unit mounted on a 1x3 or 2x3 piece of wood and then attached to an old hoe handle will make an efficient tool for this purpose. You are now ready to apply the sand. First determine the quantity bearing in mind the preferences of the majority of your members which is to say that while I prefer less sand than the average and I think the pro will side with me it does not necessarily follow that your membership will also side with me. Many players demand greens bunkered in such manner that a ball once on the green cannot get off and factors of this kind must be considered, but with that ques-

tion settled you can go ahead with the sand.

Use nothing but sharp builders' sand, not too fine, screened through  $\frac{1}{4}$  inch mesh. The matter of sharp clean sand is of the utmost importance because if there be any clay in it a crust will form making satisfactory putting impossible. Sand of this kind is often used because it is cheap and readily available but its use is far from economy. The green is being built to play golf and if you can't play golf there is no use having a green and you certainly can't play golf on a mixture of sand and clay.

You may use fuel oil of the cheapest grade or basic sediment if you can get it. Best results are obtained with 10 quarts of oil to four scoops of sand and in that proportion. Mix with a mortar hoe on an old piece of sheet iron or any flat surface like concrete or even a wooden platform. The durability of the iron commends it since you will be needing a mixing surface as long as you operate the course.

With the mixture prepared in this manner and spread according to the likes of your members the green is ready for play.

For maintenance always have  $\frac{1}{2}$  yard of sand ready mixed for quick application. This, of course, for each green. You will find it a great convenience for week-end play particularly if there has been a rain on Friday night. Also a light spreading of sand after a rain will prevent greens being too fast. Often, although there is no water apparent, the greens are actually wet and this shows up in play. This light application will correct the trouble.

During my long connection with golf in the Southwest I have done a great deal of investigating and experimenting with artificial greens in an effort to develop a better surface. I must report that up to the present, properly prepared sand has shown itself to be best. I am still working on the problem, however, and sometime may have something interesting to report.

I am deeply indebted to that well esteemed son of Scotia, Billy Brown of Oklahoma who was noted for his sand greens years ago at Muskogee. My acquaintance with Billy goes back more than a decade and in that time we have worked out a number of problems together, that is to say I present the problems and Bill works them out.

## Food Cost Hike Worries Chicago Managers

WITH food costs what they are now, it is necessary for a club in the Chicago district to charge \$1.30 for the same dinner that cost \$1.00 in February, if the club wants to make the same profit it made last year. Food prices in a year have increased 27.4%.

Suggested for general use at clubs is a bulletin the Chicago District Club Managers Assn. circulates. The bulletin reads:

### WE ARE SORRY!

—House Committee

But we cannot control commodity prices.

Therefore, the first thing you notice on the menu today is a slight increase in the cost of eating.

Some of the commodity price increases are as follows:

|                          |      |
|--------------------------|------|
| Short Loins .....        | 107% |
| Tenderloin of Beef ..... | 54%  |
| Lamb Racks .....         | 45%  |
| Bacon .....              | 96%  |
| Lobsters .....           | 41%  |
| Fowl .....               | 47%  |
| Eggs .....               | 64%  |
| Butter .....             | 71%  |
| Flour .....              | 66%  |
| Oranges .....            | 53%  |
| Grape Fruit .....        | 42%  |
| Onions .....             | 200% |

We could pass the responsibility for effectuating this change onto the incoming House Committee, but that would not be fair.

We hope you will believe that this action is necessary and for the best interest of your club.

Rising food prices are not the only trouble confronting these Chicago District managers. Labor bills now pending in the state senate are being protested by alert and active managers. The bills, if passed, will play hell with the clubs.

**PRIZE** contests at the MSC on soil analysis and seed sowing showed that the practical men know their stuff. Paul Lynch scored 100% in winning the seed sowing contest at a rate of 4 lbs. per 1,000 sq. ft. and Charles Grasse, jr., doped out soil analysis percentages right.