# Planning to Remodel the Ailing Green ${ }^{*}$ 

By WILLIAM F. MITCHELL

An ailing green to a greenkeeper is a great deal like a tail to a dog. Most of them have at least one. In the case of the greenkeeper some of these tails are wagging the dog. Many of us have spent many hours trying to rehabilitate a green that has poor drainage conditions or lacks a permanent grass. It has occurred to me that if I were a chairman of a green committee and my club had spent a quarter of a million dollars and 10 years of time, I wouldn't be very well satisfied to have even one ailing green on my golf course.
The answer to these ailing greens is some sort of renovation or remodeling. If the cost of this haphazard special care were to be added over a 10 -year period, and many good greenkeepers don't expect a cure-all in less than 10 years on that type of green, I think it would be found that the actual expenditure could have remodeled or renovated that green with 10 years of pleasure for the members.

## Planning Green Changes

In the case of remodeling a green there is some planning to be done. First: Design. With today's golf ball and steel shafted clubs the fellows are hitting longer balls. Where a green was originally designed for a 7 or 8 iron shot, that green today is being reached perhaps with a long wood. Therefore, the green should be designed accordingly. If you are not familiar with fundamentals of design it would be well to employ an architect.

The next step in the case of either renovating or remodeling is consideration of topsoil construction. On this subject the first thing is to estimate the amount of topsoil that will be needed; usually at least 200 yards. Two-thirds of this materiad is going to be sand. There has been a great deal of money and time spent on developing various tools to fill a green full of holes. Now that we are going ahead with renovation or remodeling let's put a soil in that is already full of holes. The other third of the topsoil can be played around with. We can add some natural topsoil, we can add some humus, we can add a little clay. Whatever we add, we are looking for water holding capacity and a place for bacteria to live.

[^0]We, of course, don't want too much clay as a 3-1 cement mix; 3 sand and 1 cement is a pretty strong mix. We will put in some organic material to spoil the cement mix and prevent it sticking together.

The next consideration will be submaterials. If we use a gravel, chances are that no drainage will be necessary. If we use a hard pan or a clay, the surface of this sub-structure should be drained the same as the final surface and if there are long grades there is a possibility that water percolating through the topsoil could pile up before it gets off the green and give us a wet area toward the drainage side. In that event, tile should be used to pick up this excess water and take it away.

Now, before we go into the actual construction of the green, let's go on with our planning and decide what we are going to use for a permanent grass. Assuming we have a reasonably desirable topsoil the grass will be no problem to select. On any reasonably well-constructed green, any one of the recognized strains of bent grass will do well with a reasonable amount of judicious maintenance. The grass used is merely policy.

## Figuring Material Handling

Now, we are ready to start and build this green. If this green is to be the raised type let's say 5400 square feet for easy figuring. Every foot that we raise, that green will require 200 cubic yards of material for the surface alone and, at least, another 200 cubic yards for drawing out slopes and contouring around the green. The higher we go the more this proportion will be off. If we raise this green 3 feet we would need 600 yards for the green and 600 yards for the contouring around the green and another 200 yards that we didn't even think we would need. In preparing the area for a green we are going to strip 200 yards of loam on the site of the green and 200 more to give ourselves room to build the green. That means on a green raised 3 feet, we are going to handle 400 yards before we start. There will be 1400 yards in the construction and 400 yards that is going back again. So, we are going to handle 2200
cubic yards of material in doing the job. Any time you handle over 50 yards of material machinery should be employed. The biggest machinery we can get is the cheapest machinery we can get.

Next, where is this material coming from? If it is within 200 feet we can push it in there with a bulldozer. If it is 200 to 1000 feet we can haul it in with a scraper. If it is over 1000 feet, we should get a shovel and trucks. You should go right ahead and build the green as the material comes in. When the fill is all in, the green is roughed out. When the loam is all on the rough finish is done. Then we add our insecticides, lime, etc. Roto-till them all together, go ahead and finish grade; ready for seed, sod or stolons.

Now for a contractor's actual costs: Material moved from 200 feet will cost less than 10 cents a cubic yard. From there to a thousand feet, around 15 c a cubic yard. From a thousand to two thousand, 20 to 25 c a cubic yard.

In the event you are going to save the old sod the green can be stripped and the sod saved for about a cent a square foot. If the sod is not going to be saved, you will find it better to spend half a cent a square foot, strip the green, get rid of the sod, and have good clean material to put on the finished grade.

## Save $\mathbf{\$ 2} 1 / 2$ Million Taxes With More Courses

Harley C. Lutz, Princeton emeritus professor of public finance and tax consultant to National Association of Manufacturers, is quoted by Newsweek as saying conversion of farmlands into golf courses would save taxpayers about $\$ 2,500,000$ in elimination of crop surplus and conservation programs.

Strong points of the Lutz plan as presented by Newsweek:
"It would be perfect for land conservation, for it would assure a permanent grassy cover and afford opportunity to plant shrubbery and trees at strategic points as hazards, thus keeping erosion at a minimum.
"Erstwhile farmers could be given steady employment mowing golf courses instead of hayfields, and keeping greens in condition. The small fry could pick up change by caddying, and the whole family could play golf for recreation.
"The people would have lots of money to pay green fees, club memberships, buy golf balls and club, etc. . . . Moreover, getting out in the open air would improve their health and save doctor bills. Thus it would weaken the case for socialized medicine."



[^0]:    -(NGSA convention poper)

