Spiking of greens was more general last year, especially during the hot summer months. Its advocates claim greens take water better following spiking, and that they are less apt to become water-logged. The practice probably has merit on soils which tend to pack, and to facilitate drying of the surface soil if it becomes water-logged as a result of excessive rain or over-watering.

Humus Use Increased

There is some evidence of increased interest in humus materials, to replace manure as a physical soil conditioner for new seedings, and as a constituent of the topdressing mixture. These materials show promise, provided they are properly used. No difficulties arise when they are incorporated with the soil prior to seeding, but when used in topdressing mixtures, some of the lighter, coarser products float out, and the particles gather in ridges or riffles during watering. This interferes with putting. The trouble has been overcome in several instances by preliminary treatment of the peat before incorporating it with the soil and sand topdressing. The usual procedure was to mix small amounts of nitrogen with the peat, wet the mixture thoroughly, and allow to stand for from 1

to 2 weeks. Partial breakdown produces a final product which does not riffle when used in topdressing mixtures.

The proportion of peat which can be used safely in topdressing mixtures has never been subjected to careful test. It is doubtful if more than 20 to 25 percent of the finished topdressing should consist of these materials. Their tremendous waterholding capacity may make it difficult to prevent waterlogging of the surface soil during wet seasons, if the percentage greatly exceeds the above limit.

To date there is no evidence of general turf deterioration on golf courses, which is a tribute to greenkeepers and their committees. They cooperated with the club officials, and endeavored to maintain reasonably high standards. While it is certain the spending orgy of several years ago is at an end, this will not deter golfers from demanding high standards of maintenance. In the face of reduced revenues and the increasing complexity of turf culture, clubs who dispense with the services of competent greenkeepers are indeed pursuing a short sighted policy. What the future has in store nobody knows, but it is certain that the men who survive in their chosen life's work will be those who prove their worth.

Budgeting, from the Standpoint of a Green-Chairman

By C. W. JOHNSON* Sunset Ridge C. C. (Chicago)

What purpose does it serve? And who pays any attention to it after the green-chairman's secretary has made it out? In 1928 and 1929 these were but regular and natural questions. Because who cared as long as the greens were a fine putting surface and the tees were level and inviting to a nice drive, and the fairways always offered a good lie. But how conditions and times have changed as we approach the advent of the "New Deal" and look to the former "Forgotten Man," the greenkeeper, for better results.

A 1933 greens budget is now even more essential than in the past and above all must be fair and workable.

Doping Out a Fair Budget

To compile a budget that will be fair to greenkeeper, green-chairman and member, you first must learn from your treasurer or executive chairman how much you can spend. Then call in your greenkeeper,

*Digest of Greens Convention address.

take him into your confidence and go to work. Determine how many men should be able to run the course and go up or down from this point depending on your particular job. Decide on a fair working wage for labor. Pay enough to demand good workmen and hold them accountable to their particular tasks. Happy contented labor make the greenkeeper's and greenchairman's duties easier and reflect many fold in the results obtained from your golf course. Don't cut the greenkeeper's salary too low, for remember he is a confidant and responsible for many purchases directly or indirectly. Keep him honest, let him pay his way and offer an often needed financial or executive hand.

Take each item separately such as equipment renewals and repairs, sand, sod, and seed, fertilizer, oil and gas, supplies, and trees and shrubs. Compare your expenses of the previous year, be mindful of the condition of the equipment, also the golf course itself. Then be fair with your figures. Provide for the actual necessities,

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then allow a factor of safety of at least 20%. You will find that after a couple of years you can be quite accurate in your calculations. Above all be fair. Don't make the job impossible before you even start.

Split Budget by Months

To make a budget workable is the real important job of the green-chairman. Anyone can think of a number and quite often guess right. At the outset your budget must be divided into months. cost records are the best information. none are available take two or three separated months of the year and go through the work day of each man, recording his operations and materials used for each day of the week. In this way you can get a good broadside, which will be a fair constant to use. Go up or down from this point, depending on the playing season. If your greenkeeper is apt to be off balance too often on the monthly budget, you should divide it into weeks. This is particularly effective for labor. Don't be afraid to put your findings in writing and be sure that your greenkeeper, members of your committee, club president and club manager get a copy. It is a plan and specification, and consequently should be workable for all interested parties.

If your grounds and greens budget is fair and workable, the task of keeping within its confines should be a relatively easy one. But unfortunately this is not always true unless certain precautions are taken. First of all, all labor should keep an accurate time card on all their operations. These cards must be signed and turned in nightly in order to receive pay credit. These labor reports should be checked against monthly budget. The green-chairman should supervise all purchases over \$25 except in extreme emergency cases. Often times the buying power and experience of the chairman is invaluable. Take advantage of sales and discounts. If your club enjoys credit don't be afraid to give supply houses your The monthly reports yearly statement. with comparisons with last year costs prove invaluable. In other words if both the green-chairman and greenkeeper run their golf course as a successful business enterprise, it won't be necessary to have the too frequent changes of heads that will ruin any smooth-running machine.

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