How can the story of a golf course be told by records?

That query accounts for a large volume of correspondence GOLFDOM receives from greenkeepers and chairmen, and the question is one that is at the root of many misunderstandings between greenkeepers and officials, especially with officials changing as frequently as they do at golf clubs.

In numerous instances greenkeepers' dependence on fallible memories instead of reference to exact, convenient records has prolonged trouble over a span of several seasons.

The accompanying paper by Bob Mitchell presented to members of the Greenkeepers Club of New England we believe to be the most comprehensive survey of the greenkeepers' record problem that has been printed.—EDITOR.

Golf course records may be classified in three main divisions. They are cost records, turf records, and miscellaneous records. Under these three classifications will of course be subdivisions or individual records.

Cost records as the name implies are records of the actual dollars and cents expended for various purposes or on various areas. They should be kept by the greenkeeper primarily as an aid to him and club officials, in controlling the golf course expenses intelligently. They are sometimes used for minor purposes such as gathering data for gas tax refund claims.

Past Turf Records Aid In Future Developments

Turf records are records kept regarding the condition of turf at various times, and of different factors that may affect the condition of the turf. They should be kept by the greenkeeper primarily as an aid to him and club officials, in controlling the golf course expenses intelligently. They are sometimes used for minor purposes such as gathering data for gas tax refund claims.

Miscellaneous records are records which should be kept in order to have available certain necessary information, but which do not fit into either of the other classifications. A good example of this is the inventory.

Sometimes the comparative value, to the greenkeeper or club, of various records is brought up. This is especially true as regards costs and turf records. It must be admitted that the keeping of cost records is of great value to any club. However if serious consideration is given to the fact that turf records when used as an aid to proper maintenance and construction methods give greater player satisfaction, I feel that it will be seen that turf records are of far greater value than cost records to both the greenkeeper, the club, and finally the players.

Don't Keep Useless Data

Before keeping any records the greenkeeper should make up his mind what information he desires to gain or have available from them. Records compiled and not used, or at least kept on file for probable or possible future use, are worthless, and only represent work done with no value received.

The first step in the keeping of records is the collection of data. In all cases this should be done daily, and then summarized in periodic statements. Data should be collected in as much detail as is practical or possible. The reason for details being that they can be combined into larger items at will, with accuracy, whereas large items cannot be broken down accurately if the details are not available. Accuracy is of the utmost importance, as inaccurate records are but little better than guesses or estimates, and are likely to lead to misinformation and trouble.

To be of most value records must be kept up to date and be interpreted frequently.

Wherever possible, printed forms should be used for recording in order to cut
the necessary work to the smallest possible amount. There are two general types of forms used. One is a large sheet having a large number of details on one page. It has the advantage of giving the greenkeeper a number of details before him at one time on one page, but it has the disadvantage of being bulky and hard to file and harder to change. The other type is the card system. On this a single item or detail is kept on each card. It has the advantage of being easy to file and to change, but has a distinct disadvantage of having to get out a large number of cards when using for interpretation, etc. Probably both kinds will be used in the average system of golf course records.

It must be recognized that a certain amount of time and labor is involved in the keeping of all records. The amount of this time and work must be balanced against the value to be received from the records, when deciding whether or not to keep records, always keeping in mind that the labor involved will decrease as the greenkeeper becomes more familiar with the system.

What a Good Record Tells

I will consider cost records briefly, noting only some of the information that is available from a good cost system and some of the data that must be kept to gain the information.

Some of the items of information that may be gained from costs are:

1. Time worked by each man.
2. Amount of social security tax, unemployment tax, and compensation insurance premium that must be paid.
3. Labor costs of any operation.
4. Cost of work done by golf course labor for other departments.
5. Cost of materials, supplies, repair parts, and new equipment, and the place or for what they were used.
6. Total maintenance costs of certain areas such as greens, tees, fairways, etc.
7. Hourly or mileage costs of operating any certain piece of equipment.
8. Comparative costs of operating different pieces of equipment.
9. Amounts that can be claimed as gas tax refunds.
10. Supervision costs.

11. Total expenses at any date and amount left in the budget.

Here Are Main Items

Some of the data necessary to have the above available are as follows:

a. Weekly or daily time book.
b. Labor distribution sheet.
c. Material purchase order—showing date, vendor's name, price, amount, and kind of materials, and where and for what used.
d. Equipment records—showing hours or miles run and gas and oil used.
e. Budget sheet—showing amount budgeted for each item and in total, and spaces for weekly or monthly posting of amounts spent and total spent to date for each item.

Briefly:

Items 1 & 2—obtained from item b.
Items 3 & 4—obtained from item c.
Item 5—obtained from item c.
Item 6—obtained from b & c.
Item 7—obtained from c & d.
Item 8—a comparison of costs of different pieces of equipment under item 7.
Item 9—obtained from c & d.
Item 10—obtained from e.

I also think that cost records should be only of costs charged by the club bookkeeper or by his system to the golf course budget on account. The greenkeeper should either have access to the club's books in so far as the golf course maintenance account is concerned or should have a monthly statement of everything charged against his budget in order that he may check his records for correctness.

The turf records should be divided into two main groups. The first one is the conditions records and the second one the factor records.

First, I shall consider the condition records. Under this heading we have turf condition records and construction records. The turf condition records should be kept in the form of an evaluation record or in the form of notes. The evaluation record is a score card of each area, scoring to be made on the basis of so many points for the different items such as texture, amount of weeds, etc., and a final score for each area figured up. If in the form of rates, they should be made for each area on texture, amount of weeds, variety and amount of grass, etc. In using either type the records should be made at regular periods, without re-
This interesting and inviting water hazard is part of the Arrowhead GC, fee course in the Chicago district, where Parker Nall is pro and managing director. The course was formerly a private club.

Ferring to previous record before or while doing, so as to get a true picture or record of the condition.

**Important Facts**

**From Construction Data**

Construction records are records of these methods of any construction work. They should include an outline plan and profiles of the work done. On the back of the plan or on an attached sheet should be notes on the amount of soil, tile, etc., used, and on special conditions such as excess rainfall during construction, and finally of the amount of labor, etc., used to complete the work. The outline plan should show tile drains, pipes or special areas treated differently from the area as a whole.

Next are the factor records to be considered. I shall list all of them and then treat each group separately. They are as follows:

a. Disease—fungicide treatments.
b. Topdressing—fertilizer, spiking, watering.
c. Amount of clippings.
d. Weather (precipitation, temperatures, humidity).
e. Mechanical analysis — pH, and nutrient tests.

Groups a and b should be kept on cards, one card being used for each factor, but only one for all areas. For instance, in keeping a disease record, on one card you would have the date the disease occurred, the name of the disease, the greens affected, and the extent and location affected, and any other notes of peculiar conditions that you might want to keep. Under fertilizer, topdressing, spiking, watering, and fungicide treatments you would have the date, amount, kind, method of treatment, and a note of any greens treated differently from the rest.

Group c is a record of the amount of clippings. This will probably be of doubtful value to many greenkeepers on first consideration. When you stop to think that the first thing you generally ask your greensmen is "how much grass are you getting?" it must be of some value. If it is not, why do you follow it so closely?

Group d — Weather records should be kept daily. They are of great value in predicting attacks of disease, amount of watering to do, etc.

Group e—The mechanical analysis of soil, pH and nutrient tests of soil could probably be kept most easily on one sheet for all areas. They should be made at regular periods. The mechanical analysis probably will not be made more than once every two years or more. The pH and nutrient tests should be made once or twice a year as they change more rapidly than the mechanical analysis. They always should be made at the same season of the year.

**Keep Miscellaneous Records Up to Date**

The miscellaneous records probably include the inventory and blue prints of the course, water lines and rains. The inventory should be taken at least once a year, and should include all equipment and supplies and materials. It should be kept up to date from the material purchase orders. It is of value in making out the budget and in promptly renewing exhausted supplies and equipment.

The blue prints of the course, water lines and tiles should be kept up to date, each change in the course being promptly
shown on the blueprints. They are invaluable in planning construction work, locating broken pipe, tile, etc.

Many greenkeepers are probably keeping some form of cost records at the insistence of their club officials, or possibly because cost records have had a relatively large amount of publicity. They also probably have inventories and blue prints, although I doubt, if a real survey were made, that a very large percentage of them would be up to date.

However, I wonder how many greenkeepers have turf records, and if they do not, why not? Are they not of invaluable aid to a greenkeeper? They certainly should be of vast help to him in diagnosing turf troubles, in treating disease, in keeping his soil in the proper condition, and ultimately in giving his club the best possible golf course for its members to play on. Remember that in the final analysis, within reasonable limits, a greenkeeper is judged not so much by his costs as by the condition of his course, and in the case, as it is with most of us, of a limited budget, we certainly cannot afford to make many mistakes in maintenance methods and must take every possible advantage.

Probably by this time you are thinking, "what a mess of work and detail!" Well, maybe it is. That is something that you will have to decide. There may be some records that I have mentioned that would be of no value to you. There may be others that are of value that I haven’t mentioned. That is a decision every greenkeeper will have to make for himself. In conclusion, I will only say, keep what records you feel will be of value to you, keep them in detail, keep them accurately, and above all after you have kept them, use them.

Three Day "Carnival of Golf" Makes Albany Golf-Minded

FOR size and scope, plans well laid and earnestly carried out, and for the effect the plan will have on the community, consider the Northeastern New York "Carnival of Golf," held May 15, 16, 17, in Albany. This golf carnival had everything—and plenty of it—including an overdose of J. Pluvius on the opening day.

Albany newspapers, the Chamber of Commerce, the USGA, PGA, golf equipment companies, Northeastern N. Y. Greenkeepers, PGA, and Women’s Assn., all co-operated in putting over the carnival, and the manner in which they did so is evidenced by the fact that most of the "big names" of golf were on hand for the event.

On the first day of the carnival, more than 100 golfers, representing 23 club teams in the district, entered the inter-club team match for the handsome Walter Hagen trophy. While this tournament was in progress, a greenkeeper exhibit and golf equipment show was being held, with leading national distributors conducting displays. Both events were held on the Loudonville course. Rain horned in to such an extent, however, that the winner of the trophy was not determined.

The first day’s activities were climaxed with the carnival of golf banquet that evening at the DeWitt Clinton Hotel. Five hundred golfing enthusiasts heard speakers John G. Jackson, USGA president; George Jacobus, president PGA; Bobby Jones, Tony Manero, Denny Shute and Johnny Fischer and saw a guest line that included John Quaill, president NAGA; A. W. Tillinghast, Prof. Lawrence S. Dickinson, Dr. John Monteith, Horton Smith, Harry Cooper, Lawson Little, Tommy Thomson, Jerome D. Travers, Francis Ouimet, Jesse Sweetser, Johnny Farrell, Gene Sarazen, Tommy Armour, Ray Mangrum, Paul Runyan, Helen Hicks and Charlotte Glutting. Mayor John Boyd Thacher of Albany was toastmaster.

The Spalding missionary troupe of Smith, Cooper, Little and Thomson put on the show the following day and a gallery of 4,000 turned out to watch the stars perform. Smith and Little literally took the par 72 Albany muny course apart, scoring 65 and 66, respectively. The three-day event was concluded on Monday with the pro-women’s and the Northeastern N. Y. PGA tournament at the Troy Country club. Eddie Schultz carried off the honors in the latter event.

Probably most important from the standpoint of putting golf on a higher scale in the district was the formation of the Northeastern New York Golf Assn. Dwight B. LaDu of Schuyler Meadows, and general chairman for the three-day carnival, was elected temporary president. LaDu reported golfing interest was given such an impetus by the carnival that definite action is being taken to underwrite a major golf open tournament for the Albany district, beginning probably next season.