Job Analysis Can Cut Waste Out of Maintenance

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This article is condensed from a speech made by Williams at the annual USGA Green Section meeting.

What does it cost the club members for the annual operation of their private clubs? The round figure of $500,000 for a 300 member club is fairly realistic, possibly somewhat conservative. As we get closer to our subject, we find that the course maintenance costs lie in the range of $40,000 to $80,000. So taking the average figure of $60,000, we can conclude that the cost of operating the course proper is about 12 per cent of the member's expense dollar. As we get closer to the more detailed consideration of the grounds labor, we are speaking of a $25,000 to $50,000 expense which, in turn, represents 5 to 10 per cent of the member's expense dollar.

These figures should place course maintenance costs and labor costs in a better light for further study. When we get around to thinking in terms of economics, savings and budget cuts at our clubs, the grounds department doesn't lend itself to being a major area for consideration. May I add that efficiency doesn't necessarily indicate a reduction of cost or expense but more appropriately the process of reducing waste to a minimum and getting the most out of the money expended.

Profession Has Advanced Rapidly

The supt. is the primary figure concerned with effecting job analysis studies and planning. So it is contingent upon this man in management as to the type of studies and records that he will engage in and as to how effectively they can be put to use. A brief evaluation of the supt. of today reveals generally a highly dedicated individual whose profession has progressed rapidly over the past 30 years and especially so in the post war years. While we are still a predominantly practical group, we are gradually changing to the more scientific, more educated and more executive type of individual.

Our profession has advanced rapidly over the past 30 years.

Golf has advanced so rapidly that we have not kept pace by training new supts. The clubs must share part of the responsibility by not acknowledging the supt's. comparative value to the club and establishing income standards that create a more inviting and attractive environment of employment for men better qualified to fulfill the club's needs. In our international assn. we have about 1000 men from a potential of 6000 clubs who are progressive enough to become mem-

bers of their professional trade group. This tells me that about five of six clubs possibly are getting by on substandard grounds management. Fortunately for golf, there are supts. who have continued to educate themselves, and clubs that have wanted increasingly better playing conditions. Therefore progress continues and at the same time the gap between supts. widens.

Maintenance Objectives

Efficiency implies the accomplishment of an objective with minimum waste. Practically every club has a different objective when it comes to a standard of course maintenance. So we have many variations of standards. In illustration we can compare a well groomed private club and an austerity minded municipal course as two extremes. Most of the refined operations of trimming and grooming at the private club are desired and necessary. But most of these same practices would be totally extravagant if applied to the public course. It doesn't need bentgrass tees and fairways. It doesn't need collars around the greens, edged traps, fresh sand annually and so forth. The time required for mowing a green at a club desiring top putting surfaces is bound to be greater than the time allowed for the same operation at a profit minded public course where standards are relatively low. In most mowing operations speed reduces quality, as we all know.

Fortunately, in large metropolitan areas, we usually find a few clubs desiring similar standards of maintenance. They provide an opportunity for discussion of many common factors, yet they cover quite a spread of overall aims with variable pocketbooks to pay the bills. So in discussion of efficiency of maintenance we have to adjust the shoe to fit the foot.

Informal Type Studies

Time and motion studies on golf courses must of a necessity be pretty much informal. These have to be made by observations by the supt., keeping of minimum records and by making pilot studies from time to time by both the supt. and perhaps the various golf assns. Course time and motion studies can't be compared to those of factories.

"Job Analysis" is more appropriate than "Time and Motion Study." On golf courses we must correlate efficiency with money available, the supt., amount of play, club objectives, the grounds staff, weather, unusual conditions of soil, drainage and possibly a few other factors.

The supt. should be aware of these factors and direct his attentions to continued observation. I have tried to develop an approach so that whenever I observe our men working, I ask myself this question, "Is there a better way to do this job without sacrificing quality?" A supt. must look at all the details and movements of his men fertilizing a green, for instance, and then try to eliminate wasteful effort. This is just another reason why we tell supts. to get out of their overalls and become worthy of the title as well as the salaries they aspire to.

Interference in Maintenance

Efficiency in maintenance involves the factor of player interference to the workmen as well as workmen interference to the players. Neither one is desirable. The subject covers a wide range of discussion. Interference with the workmen has become a nightmare to most supts. Considering daylong play, how long can we allow for the overall cutting of the greens? How early can we and should we start the crew? How much equipment do we need? We can only answer these questions by being on the job, alert to the situation, and making a practical analysis.

If mowing greens ahead of players (and they have to be mowed at least six times a

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USGA Lists Course "Sins Most Frequently Committed"

A six page pamphlet recently released by the USGA to its member clubs listed the "sins most frequently committed" on a golf course. These include:

1. Littering with soft drink bottles, glasses and paper cups;
2. Climbing out of bunkers from the high side;
3. Failure to replace divots;
4. Failure to repair ball marks;
5. Turf scuffing caused by dragging feet and twisting on the green;
6. Leaning on a putter while standing on the green;
7. Using a putter to scoop the ball out of a hole;
8. Jabbing the putting surface with a flagstick or carelessly replacing the pin;
9. Deliberately hacking up the green;
10. Careless use of golf cars.

I run a men's special, I make sure that notice of what is being offered is posted where the women can see it. With women's specials, I do the same thing so that the men will see the advertising. Women, of course, are more responsive to this because if they don't buy merchandise that is on sale, they at least tell their husbands about it. And, quite a few men, surprisingly enough, will make purchases for their wives if an ad reminds them to do so.

Glaring Oversight

The biggest oversight that pros are guilty of is not preparing that ad that should appear in the club newspaper or on the bulletin boards at the end of the season thanking members for their patronage. It's one of those things that if it isn't seen, won't be missed. But when it is seen, you can bet the last ball in the display case that it is appreciated. A gesture such as this helps business.

As I mentioned earlier, nothing gives a fellow a lift like a newly built or decorated pro shop. But too much reliance shouldn't be placed in that intriguing indirect lighting. A fellow in our business should depend a great deal more on the direct sell.

Job Analysis Can Cut Waste

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week) was our only worry, we'd hire 18 men, give them each a mower and be through with the job in 45 minutes. Then we would face the problem of keeping these men productively occupied for the rest of the day without interfering with the players. This gets us around to the realistic point of how many men we require and the timing and assignment of their duties. For a better insight into the problem, let me tell you what our basic work unit of men is at Bob O'Link. We strive for top quality turf, we have no women to contend with and we have adequate equipment. Most of our play is in the afternoon. In our normal daily operation four men mow greens in the morning. These same men often rake traps in the afternoon. One man continuously mows rough. One man mows tees, one changes cups, tee towels and markers, one man mows green banks and tee banks, two men mow fairways or repair equipment or spray chemicals, and one or two men work nights on irrigation. About 6 of 12 men are engaged all day in basic work and the remainder are available for half the day for the other 1001 jobs need-

ing attention. When we analyze the situation we have about a dozen men caring for 160 acres of fine turf, or an equivalent of about 13 acres apiece. If we didn't use work analysis studies I don't know how we would get along as well as we do.

Routing and Assignment

Job assignment is part of the answer to efficiency, but a point not to be overlooked is the routing of the men and equipment. Here again there are about as many variations as there are golf courses. My experience has covered 18, 36, and 54 hole operations of square, rectangular and random property outlines. All this enters into the picture of the studying and analyzing of operations. Sometimes the centralized system of having one centrally located service building is the answer to greater efficiency. At other times the decentralized system with several outlying tool sheds may help to reduce excessive unproductive travel time to and from assignment areas.

Equipment Studies

We have thus far concerned ourselves mainly with the use of men. What about some of the major equipment items? Do they also need to be studied for efficiency? Yes, perhaps more than they have been. A few years ago at the Beverly in Chicago, I realized that I was fighting a losing battle in the maintenance of close cut bent and poa annua fairways.

The irrigation system had a capacity of 450 gpm, meaning we could probably water fairways about once every three nights. I often saw short-rooted poa annua grass wilting before my eyes for the lack of moisture. Still I knew it would be at least another 24 hours before we could give relief with another watering. I felt that we had only one alternative to improve the situation — by changing our irrigation system so that we could water all tees, greens and fairways in one night. Investigation revealed that by installing a second pumping station, we could accomplish this. Upon presentation of our findings to the committee and board, the wisdom of the study was understood and accepted. There has been a considerable improvement in the fairways with a minimum loss of poa annua from lack of water.

Study Mowing Operation

Mowing of the various areas of the course is another item of equipment usage that should be constantly noted with an eye towards eliminating waste of time

and effort. A simple example might be taken from the mowing of the collar adjacent to the putting surface. I noted that my men were making as many as four complete circles around the greens to mow variable width collars. It appeared that by reducing collars to a uniform width we could cut the mowing in half with only two mower widths for the collar. It worked and we have made this standard procedure ever since. Another thought on equipment is the use of multiple units. I find, for instance, that by using two 7-gang fairway mower units, we reduce an over-all job from about 8 hours to a 3½ hours.

Fairway Fertilization

Fairway fertilization is another operation that has always taken its toll of hours. It required about three days with an old conventional 6- or 8-ft. spreader to fertilize our 18 fairways. Weather changes, play, and other factors sometimes entered into the picture, too, and we found it was taking a week or more to get the job done. We needed a more efficient method of fertilizer distribution. We came up with an improved technique of using a cyclone type spreader covering approximately 40 to 50 ft. to a swath and a three-day job was reduced to no more than six hours or less. We also worked out a plan for using the same machine on our tees and now all 18 are handled in about 50 minutes by one man instead of two working all day.

Construction Guide

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All banks of water hazards should be graded to facilitate maintenance with power equipment. Provisions for sanitation and vegetation control are important in the construction of water hazards.

Irrigation Requirements

The irrigation system should be designed to produce and distribute all water necessary to maintain good turf under all weather conditions. Extended periods of drought and an inadequate irrigation system have been expensive for many clubs. As this subject is so large and complex, it is impossible to discuss all of the items which must be considered. Climate, water requirements of the grasses, surface drainage, internal drainage, type of soil, rate of application, spacing of outlets, adequate pressure, prevailing winds, control valves, pressure controls, provision for draining, depth of bury, access