# Course Cost Research Shows Value of Complete Records 

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## (Continuation of Massachusetts Agricultural College-GOLFDOM Maintenance Cost Research Analysis)

GEOGRAPHICAL location of golf clubs apparently makes no difference in the percentage of the total labor appropriation spent for each division. On careful thought, why should it? A course in Maine makes its labor appropriation for a playing season of one hundred days, one in California for a playing season of three hundred and sixty-five days. These probably represent the extremes.

Other important facts concerning the division of the labor efforts have been learned from the questionnaires returned. Many of these facts will be discussed and tabulated in another and more detalled report. Briefly they are as follows:

The age of the course appears to cause no marked difference in the labor distribution. This may be somewhat surprising but no more so than the fact that those courses using power green mowers spent the same percentage of their labor pay roll on the greens as those clubs that mowed by hand. If the greenkeeper did save by using power green mowers in the time required to mow the greens, he either used the saving to perfect his greens, or it was taken away from him in his budget. Another phase is that the time required for power mowing is only a fraction of all the other operations to keep the grass in the best condition. As no difference was seen in the use of the topdresser it was felt that the reasons are the same as outlined for the mowing.

## Spend Savings for Improvement

The use of fertilizers and water on the fairways made no definite change in the
percentage of the money used to maintain the fairways. It was clearly shown that more money was spent for fairway labor on those courses using water and fertilizers. However, the original labor budget was larger.

The use of power mowers on tees made no difference in the percentage spent. Here again the reason is probably similar to that of power mowers on greens; there are many other improvement operations that can offset the saving made in the mowing, or the labor saved is removed from the payroll.

The method of mowing rough showed one 18 -hole course using the horse. This course was in the south, and its percentage for maintenance was the same as the general average. Two nine-hole courses reported using the horse, one gave the rough cost as one per cent and the other five. In comparing the effect of side bar mowers over fairway units for mowing the rough, it was found the average rough cut on the courses using the side bar machines was $4 \%$ and on those using fairway units $8 \%$.

The matter of the supervision being included or not in the distribution made no apparent difference in the final percentages.

Condition of the greens, tees, traps, fairways and rough showed no definite alteration in the percentage of labor distribution. Neither did the area of the greens, fairways, tees, traps, and rough effect percentages. Probably this is due to the fact that fairly definite areas are demanded by

TABLE VI.
Area Maintained by 1 Per Cent of Labor Appropriation. Taken from questionnaires giving actual cost figures.

|  | Greens. | Fairways. | Tees. | Traps. | Rough. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Size of Course. | Sq. Ft. | Acres. | Sq. Ft. | Sq. Ft. | Acres. |
| 9-hole | 1,400 | 1.9 | 2,600 | 3,950 | 8.9 |
| 18-hole | 3,700 | 6.1 | 8,400 | 17,600 | 12.6 |

the game, together with the fact that as the club's revenue increases the green, tee, and trap area increase in proportion.

With the approximate areas given in the questionnaires, and the percentage necessary to maintain this area it was interesting to figure the average unit of area maintained by one per cent of the labor appropriation on nine- and 18 -hole courses. The work was not done on the 27 - and 36 -hole courses for lack of figures showing the size of the areas.

While this survey was made to find out
if a fairly definite ranse of percentage of the labor appropriation was used in the maintenance of the various divisions of the course and to establish an average, it is also believed to be the first extensive study made of the labor and management in the golf course maintenance field. Experiment stations and U. S. G. A. Greens Section have done much in the matter of turf culture, soil studies, and disease control; and GOLFDOM has made its annual survey. This study should increase the value of experimental work.

| TABLE VII. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | -No. of | holes in | course |  |  |
|  | 9 | 18 | 27 | 36 | 45 |  |
| $\begin{array}{lllllllll}\text { Number of courses reported. .................. } 89 & 106 & 9 & 2 & 2 & \text { Total }\end{array}$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 37 | 27 | 2 | 0 | 0 | 66 |
| Fertilizer in '29 but none in ' 30. | 8 | 10 | 0 | 0 | 0 | 18 |
| Fertilizer in '30 but not in '29. | 10 | 13 | 1 | 0 | 0 | 24 |
| Fertilizer in both ' 29 and '30. | 17 | 46 | 2 | 2 | 1 | 68 |
| Power mowers for greens. | 6 | 20 | 1 | 36 | 0 | 63 |
| Topdressers reported on.. | 13 | 31 | 1 | 2 | 0 | 47 |
| Machinery repaired by labor employed | 46 | 87 | 7 | 0 | 1 | 141 |
| Machinery sent out for repairs........ | 15 | 15 | 0 | 2 | 0 | 32 |
| Greens condition reported-Good... | 43 | 64 | 4 | 1 | 1 | 113 |
| Average | 18 | 16 | 3 | 1 | 0 | 38 |
| Low | 1 | 3 | 0 | 0 | 0 | 4 |
| Fairways condition reported-Good | 22 | 38 | 4 | 1 | 1 | 66 |
| Average | 30 | 16 | 3 | 1 | 1 | 51 |
| Low | 9 | 7 | 1 | 0 | 0 | 17 |
| Tees condition reported-Good... ${ }^{\text {Average }}$ Low ${ }^{\text {a }}$ ( | 25 | 32 | 4 | 0 | 1 | 62 |
|  | 25 | 37 | 2 | 2 | 0 | 66 |
|  | 9 | 10 | 1 | 0 | 0 | 20 |
| Traps condition reported-Good... | 25 | 37 | 6 | 1 | 1 | 70 |
|  | 23 | 32 | 1 | 1 | 0 | 57 |
| Low | 10 | 3 | 0 | 0 | 0 | 13 |
| Rough condition reported-Good... | 30 | 44 | 5 | 1 | 1 | 81 |
|  | 24 | 29 | 2 | 1 | 0 | 56 |
| Low | 3 | 3 | 0 | 0 | 0 |  |
| Reporting all divisions as good |  | 7 | 2 | 0 | 1 | 16 |
| Power to mow tees............ | 6 | 17 | 0 | 2 | 0 | 25 |
| Both hand and power to mow tees........ | 0 | 15 | 2 | 0 | 1 | 18 |
| Clay tees. | 8 |  | 0 | 0 | 0 | 13 |
| Sand greens | 9 | 9 | 0 | 0 | 0 | 11 |
| Accounts kept, with supervision, included, on | 51 | 72 | 1 | 1 | 1 | 126 |
| Rough mowed by-Hand................... |  |  | 0 | 0 | 0 | 2 |
| Horse |  | 7 | 0 | 0 | 0 | 27 |
| Fairway units | 17 | 28 | 4 | 2 | 0 | 51 |
| Side bar . | 22 | 30 | 1 | 0 | 1 | 54 |
| Units and side bar | 3 | 18 | 0 | 0 | 0 | 21 |
| Horse and power side bar | 0 | 1 | 1 | 0 | 0 | 2 |
| Horse and power units. | 0 |  | 0 | 0 | 0 | 3 |
| Highest labor appropriation .............. $\$ 9,000$ |  | 40 | 42 | 17 | 37 |  |
|  |  | \$30,000 | \$23,000 | \$31,000 | \$50,000 |  |
| Lowest labor appropriationMost popular labor appropriation ............ | \$300 | \$1,410 | \$10,000 | \$10,000 |  |  |
|  | \$3,500 | \$6,000 | \$15,000 | \$15,000 |  |  |
| Largest number of men employed.......... | \$4,000 | \$7,000 | \$20,000 | \$20,000 |  |  |
|  |  | 17 | 16 | 30 | 30 |  |
|  | 1 | 2 | 10 | 12 |  |  |
| Smallest number of men employed ......... Most popular number of men employed..... | 3 | 8 | 12 |  |  |  |

TABLE VIII.
Average Size of Areas Devoted to Tees, Rough, Fairway, Traps and Putting Greens.

|  | Greens. | One Green. | Fairways. | Tees. | Traps | Rough. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size of Course. | Acres. | Sq. Ft. | Acres. | Acres. 25 | Acres. 58 | Acres. |
| 18-hole | . 2.91 | 7,064 | 69 | 1.0 | 2.7 | 36 |
| 27-hole | . 3.7 | 5,933 | 57 | . 71 | . 44 | 14 |

Interesting data regarding the average total area sizes was obtained from those questionnaires giving definite area figures. The results are shown in Table VIII.

## Learning to Keep Records

Perhaps one of the outstanding findings in this work has been the inability of the clubs making returns to give their distribution of labor costs. Many returns were received with estimated figures and a number of clubs specified that they kept no records. Tabulating the "no record" clubs with reference to their age, it was interesting to note that there does seem to be an effort by the younger courses to know where the money goes, as none under three years admitted they kept no records.

The readers of this informal report should distinctly understand that it reports existing division of expenditures, and does not state or express an opinion as to what the correct division percentages of labor distribution should be. GOLFDOM and the writer believe that before constructive criticisms of golf course expenditures can be made, it is important to know exactly the existing division of labor efforts.

Every one of us has looked at the speedometer of his automobile, put in a given number of gallons of gasoline and then when the tank was àgain empty looked at our speedometer, and figured the number of miles driven and divided it by the number of gallons consumed. If the record was good, we told friends how far the car went on one gallon of gasoline. That is similar to this work, only we figure the total amount of money spent for labor (on the greens, for example) and divide it by the total amount of money spent for all labor during the year and obtain the per cent of the total used to maintain the greens. Aren't you as much interested in your percentage distribution of labor as you are the miles per gallon your car goes? If your car is not giving you the average number of miles it should, you find out why. If your greens maintenance percentage is much above the average, for your own good
shouldn't you find out what makes it high and correct the cause?

## Wants More Reports

A more comprehensive report is being compiled, and it is hoped that after reading this report, greenkeepers and chairmen who have not replied to the questionnaire will immediately do so, thereby rendering the second and detailed report more valuable.

From this report it should be seen that a statement such as "I spent $\$ 4,000.00$ on greens last year" means much less than "I spent $36 \%$ of my pay roll on greens." The comparison of course costs if divided into percentage of the total expenditure is more nearly fair than a comparison of dollar expenditures. It should also be understood that no true comparison of costs can be made unless there is also a comparison of the true inventories of the physical condition of the courses being compared. Again the writer appeals to the clubs to furnish more data by replying to the questionnaire.

## Wheeling Golf Workers Organize Association

PROFESSIONALS, greenkeepers and caddiemasters of the Wheeling (W. Va.) district met recently and organized the "Professionals, Greenkeepers and Caddy Masters Association," the object of which is to obtain, through monthly meetings, close harmony between the three golf course positions represented by the members.

The first piece of constructive work done by the new association was to agree that any caddie dismissed from a golf course anywhere in the district would not be eligible for work at other district clubs until he had been reinstated by the club from which he was dismissed.

Prominent among the organizers were Art Chapman, pro at Wheeling C. C., Rader Jewett, pro at Cedar Rocks C. C., and Bob Biery, pro at Wheeling municipal links.

