REG. U, S. PATENT OFFICE

# National Course Labor figures Furnish Helpful Standards 

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|N 1929 IT WAS felt that the idea of comparing golf course maintenance costs was not fair to those courses with small incomes; especially when compared with the much larger ones. More thought not only strengthened this idea, but also brought up the matter of comparing golf course labor expenditures on a percentage basis.

The idea was discussed with Prof. Dickinson of Massachusetts Agricultural College who felt that the matter was at least worth giving some time and consideration, and through his cooperation a survey was made from actual reports of greenkeepers that were in his files.

The total labor appropriation was taken, and the amounts spent for greens, fairways, tees, traps, and rough, were recorded on the basis of a percentage of the total. As it was always found that each club had other items for which they used a part of their labor, the total of these percentages never equalled $100 \%$, as these other expenditures included such things as walks and roads, landscape, policing, new construction and the like. A separate classification was therefore made to include all such items and called "balance."

These headings of greens, fairways, tees, traps and rough included all labor operations that came under each classification.

Authorities in the greenkeeping field and club officials have commented on the course maintenance cost research done by Mr. Heald in association with the Massachusetts Agricultural College and GOLFDOM, saying they consider it to be the most timely and vitally important contribution made in recent years to golf club business operation.

Interesting and significant facts concerning costs are for the first time brought to light by the Greenfield investigator. It is believed that a study and application of these findings will enable many course superintendents to appraise their results by supplying practical standards. Also, it is believed that publication of these findings, now begun in GOLFDOM, will encourage other golf clubs and course superintendents to co-operate with the clubs who so speedily and generously supplied their data in the initial survey.

Tabular presentation of the findings and comment will continue in August GOLFDOM. Later, more extensive analysis and discussion will appear in these columns under Mr. Heald's signature.

Mr. Heald, the M. A. C. and GOLFDOM will appreciate any comment on these findings.

Under greens, for example, came mowing, poling, working, weeding, topdressing, watering, compost pile labor, and any other work that was done on the greens. It should be distinctly understood that no
consideration was given to materials purchased, or used, nor to depreciation.

The results showed that there seemed to be a rather definite range of percentages in the distribution of expenditures that the greenkeepers were using for labor for the various headings. As a result, an average percentage distribution was taken of labor costs and the results were published in GOLFDOM for June, 1930, and in the July issue further results were published from figures that had later become available.

Because of the interest created by these articles, and the criticism received, it was felt that the work should be carried further, and to be national in its scope, in order that the true merit of the idea could be tested and a rather definite percentage of the distribution of the labor appropriation be found for each division. This survey now being reported has been financed by GOLFDOM and the work done through the Massachusetts State College Graduate School, under the immediate direction of Professor L. S. Dickinson.

After publication of the results obtained last year, critics felt that unless consideration was given to the following items, the work had little merit, and that consideration of such items would alter the results:

Geographical location of the course.
Age of the course.
Use of power mowers on greens as compared with hand mowers.

Use of mechanical topdressers on greens as compared with the shovel.

Use of water on fairways.
Use of fertilizers on fairways.
Mowing of tees by power compared to the use of hand mowers.

Method of cutting the rough.
Whether the greenkeepers' time was included or not.

Physical condition and health of the greens, fairways, tees, traps, and rough.

Area of the greens, fairways, tees, traps and rough.

Amount spent for new construction.

Fully appreciating the fact that the first attempt at anything new can always be improved upon, all of the above items were included in the questionnaire sent out to the green-chairmen last February and published in GOLFDOM of the same month.

## Thirty-six States Represented

As a result of the survey, 208 questionnaires were returned, these being from 36 states, representing 89 nine-hole golf courses; 106 eighteen-hole courses; 9 twenty-seven hole courses; 2 thirty-six hole courses, and 2 forty-five hole courses.

The only states not represented in this year's tabulations are Alabama, Arkansas, Arizona, Delaware, Georgia, Idaho, Montana, Nevada, South Carolina, Utah and Wyoming. It is interesting to note that excepting Delaware and Arkansas, the remaining states can be grouped as states adjacent to one another, namely, Montana, Idaho, Wyoming, Utah, Nevada and Arizona; and Alabama, Georgia and South Carolina. While a majority of these states are listed as having very few golf courses, some of those from which returns were received have about the same number. Perhaps the interest in these states not replying is not great or the matter is regional. However, there are returns from states adjacent to these so that a percentage for a section could be established, as the conditions are similar.

## Classify Returns

The nature of the questionnaires returned were such that they were divided into four classes:

1. Those who had actual flgures of their labor costs as requested.
II. Those who had no actual cost figures but estimated their labor distribution.
III. Those who had no cost figures at all.
IV. Those who had no cost figures and specified that they did not keep any account other than grounds or greens.

TABLE I.
Showing Classification of Questionnaires, and Number of Clubs Reporting.

Classification.
Returned actual labor cost figures.
Estimated labor cost figures ...................(45)
No labor cost figures furnished ................(56)
Specified no labor cost figures .................(37)
208

| Number of holes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 18 | 27 | 36 | 45 |  |
| 27 | 36 | 4 | 2 | 1 |  |
| 24 | 20 | 1 | 0 | 0 |  |
| 27 | 27 | 2 | 0 | 0 |  |
| 11 | 23 | 2 | 0 | 1 |  |
| 89 | 106 | 9 | 2 | 2 |  |

TABLE II.
Average Percentage Distribution of Labor Costs as Reported by 70 Clubs.

Number of holes.

| holes. | Greens. | ways. |
| :---: | :---: | :---: |
| 9 | 36\% | 13\% |
| 18 | 37 | 12 |
| 27 | 37 | 13 |
| 36 | 28 | 16 |
| 45 | 35 | 12 |

However, nearly every questionnaire returned answered some of the other questions.
From those returns which contained actual labor costs the work of determining percentages was done. It is obvious that the estimated figures would give us nothing actual. With costs of labor spent for greens, fairways, tees, traps, rough, new construction and balance known, as well as the total labor appropriation, the percentage for each division was figured and average determined. The result appears in Table II.

It seems evident from Table II of average percentages that there is a rather definite amount of the total labor appropriation that is spent on each of the divisions, regardless of the size of the course. Bear in mind that included in these averages are the states of Maine, Washington, California, and Florida, the four corners of the United States, together with enough of the other states to be representative of the entire nation.

## Percentages as Warnings

While these averages show a very definite similarity it is not the idea of this study to set each one of these averages as the correct percentage to spend on the various divisions. They do show how the division of labor efforts is being made on golf courses regardless of the size of the labor budget. If the greenkeepers' accounts for labor show any great variation from the average distribution and there is no
apparent reason for such variation, he will look into it. If a percentage is above the average, he will see where the fault lies, or if the results obtained are above the average. If it is below the average and he has kept his course in better condition than the year before, his pay should be raised.

It is felt that these averages are definite enough for the greenkeeper to check his labor management. However, one must have the actual costs-the total amount for labor, and the amount spent for each division-and the greenkeeper or the club that does not have them will never know the efficiency of their efforts. Bear in mind that these figures are reckoned on a yearly basis and no such work has ever been done for any other period of time.

The adoption of a percentage comparison would always make it possible to give a fair answer to that question always asked when green-chairmen, or greenkeepers get together. "How much did you spend for maintenance of your greens last year?" Heretofore if the amounts (in dollars) were very far apart one always felt that the difference lay in the natural condition or on similar factors such as the size of the greens. However, one result of this study is that the variation in the amount (in dollars) spent is not a factor when the percentage is computed for any one division against the total appropriation for labor. Having come to this point there may be a percentage relation between ma-


TABLE IV.
Percentage Range of Division of Labor for 9- and 18-Hole Courses. (Extremes omitted.)

|  | Greens. Fairways. Tees. |  |  | Traps. | New |  | Balance. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per | Per | Per | Per | Per | Per | Per |
| Size of Course. | cent. | cent. | cent. | cent. | cent. | cent. | cent. <br> 19-43 |
| 9-hole-Range ${ }^{\text {Average }}$ | $30-40$ 36 | 7-14 13 | $2-8$ 5 | $2-8$ 5 | $4-9$ 6 | 8-15 | $19-43$ 21 |
| 18-hole-Range . | 36 $26-48$ | 13 $8-21$ | 5-10 | 2-12 | 6 $3-9$ | 14 $2-37$ | 21 |
| Average | 37 | 12 | 6 | 8 | 6 | 7 | 24 |

TABLE V.
Comparison of Percentage of Labor Distribution for Seven Years on One 18-Hole Course and Averages Found in This Study.

terials so that the whole cost of any division can be averaged on a percentage basis. That, some one will figure out in the future.

## Compares 1930-1931 Percentages

In order to test the merit of the work compare the averages found in the study of 1930 with that found in this study even though the number of clubs was less than in 1930.

It is quite evident from these above comparisons that there is a fairly definite percentage of the total amount spent for labor being used for each division of the golf course. This year the returns from whieh the percentages were computed are larger than last year and the geographical area much greater. However, the findings are almost the same as in the 1930 studies. Again!-Is it not evident that there is a fairly definite percentage of labor being used on the main divisions of the golf course?

This computation is based on a mathematical average that some may feel is not fair. In order to give them the benefit of any doubt let us look at the ranges of the percentages found and not use the average at all.

Before leaving the percentages and the averages it should be noted that there was an outstanding return from one 18 -hole course. It furnished a seven-year average, to compare with the average we have
found this year. Of course the value of figures in cost work of this kind increases as the figures increase, that is, an average for several years is much more to be desired than that for only one year.
(To be continued in August)

## Southern California Testing New Handicap System

BELIEVING that a change of some sort in the present system of handicapping is necessary, the Southern California Golf Association has requested the affliated members to try a new method, as devised by those eminent golf authorities, Max Behr and George Marshall.

Based on the theory that the first and real purpose in golf was the playing of each individual hole in par, rather than the total score made, the following system of handicapping on the number of birdies and pars made, scoring two points for birdies and one point for pars has been suggested by these authorities.

By using this means of handicapping, a player making one birdie and four pars would score six points, which, when deducted from a possible 18 points leaves a 12, making his handicap 12. Therefore, a player making only two pars, or two points, would be a 16 handicap, etc.

The players would, of course, be handicapped as at present on an average of his scores and not on any one 18 -hole score.

