

general information are numbered from 1 to 20 inclusive, and the questions under expenditures from 21 to 31 inclusive. It was not only interesting but somewhat amusing to study the expenditure items against the general information items. For instance, question 5 is, "Where do you get your water (city, well, or other source)?" Some of our green chairmen would report back that they got their water from the city, and then under question 29, "Cost of water," zero. Obviously that was wrong, and it gave us a chance to get back at the club and have them check that item. Under questions 6, "Have you any water pumps?" and 7, "If so, what is the total horsepower of the motors driving them?" they would answer that they have water pumps and get their water from a creek or pond, and under question 30, "Cost of pumping," zero. That was wrong, and that again gave us a chance to get back at them for further checking.

It is interesting to know that from extended correspondence back and forth with the green chairmen of the 38 member clubs on this questionnaire, we have dug out from them facts that are obviously wrong, and they have corrected their forms on their books, so that with the 1928 season we expect to get reports that are more fairly accurate.

The question of the cost of construction work we have undertaken to set up as an item to be deducted from the total layout of money for the golf course maintenance including work construction, so that we bring the analysis down to a cost of golf course maintenance strictly as a maintenance item, and show at the same time a separate figure for the construction work.

After the questionnaire was returned by almost every member club, we listed the 38 clubs on the margin of a blueprinted form, and across the top listed the 31 items that are in the questionnaire, so that in sending the blueprint to the chairman of the green committee in each club he was able to sit down with his greenkeeper and get a definite and accurate picture of what he was doing compared with other clubs in the district.

It is a pleasure, after putting so much work on this problem, to report that the chairmen of our member clubs are deriving substantial benefit from this work, and we hope that, with the introduction of the new form, the 1928 analysis will show us figures more in line with what we want to see in the district cost analysis.

If anyone would like to have copies of the new form which we propose to print soon, and will write to the Detroit District Golf Association, 2843 East Grand Boulevard, Detroit, we shall be very pleased to send them.

Rural Weather Lore Is Frequently Reliable

Intelligent farmers and others engaged in outdoor work nowadays are not greatly interested in predictions in almanacs or in other long-range fiction, according to Dr. W. J. Humphreys, of the Weather Bureau. They rely on official reports by radio and on their own observations. Scientific forecasting of the weather does not place reliance on many of the old "signs," particularly those that are supposed to forecast one season from occurrences in the previous season. But Dr. Humphreys says that many of the sayings in regard to the weather that have been handed down from generation to generation are based on many observations and are often reliable. For example, he says a

warning of some value but not highly reliable is embodied in the verse:

A rainbow in the morning
Is the shepherd's warning;
A rainbow at night
Is the shepherd's delight.

"A pretty good guess" is to be found in:

If the sun sets in gray
The next will be a rainy day.

One of the "very best indicators of the weather for the day," Dr. Humphreys says, "is the state of the dew in the morning. It gathers on the grass and other exposed objects when they are cool enough to condense it out of the air, just as moisture is condensed out of the air on the side of a pitcher when filled with ice water. Now, the grass and other outdoor things cool considerably only on still, clear nights, the kind that occur during a spell of fine weather and at no other time. Hence a heavy dew means that the air was still and the sky clear, at least during the latter half of the night. And it is pretty certain that if there was neither wind nor clouds during that time, the day will be a good one for all outside work. On the other hand, if there is no dew in the morning it is almost certain that either the sky was clouded or that there was appreciable wind, or both; and both, as a rule, precede a general rainstorm by 6 to 12 or even 24 hours, according to circumstances."

Consequently Dr. Humphreys says there is much reason back of the two proverbs:

When the grass is dry at morning light
Look for rain before the night.
When the dew is on the grass
Rain will never come to pass.

Mistakes are made by the best of us. Don't take a man to task for an occasional mistake he makes. It is by mistakes that he learns.

Cleaning up the rough.—Much of the congestion on a golf course and slowing up of play which occurs on holidays or at other busy times is occasioned by efforts of parties to find balls lost in the rough. The function of the rough is to check a ball which overreaches a fairway, and not to lose the ball. This object is best gained by a low-growing grass. The turf need not, however, be equal in quality to fairway turf, and generally a sparsely growing, drought-resistant grass, that requires no attention, either as to mowing or fertilizing, is considered ideal for the purpose. Such a grass can as a rule be found native over most parts of the country. Often the soil of the rough is rich in character, promoting a growth of weeds and underbrush, in which the recovery of a lost ball is hopeless. In such cases the top soil can be scraped off and used to advantage elsewhere on the course. Sheep's fescue and Canada bluegrass have generally been found to be ideal grasses for the rough. They do well enough on poor, dry soil, and are adapted to most parts of the United States, especially the North. Of first importance, however, is the removal of underbrush, weeds, and the large bunch-grasses which as a rule occupy waste places.