

COST ANALYSIS FOR FAIRWAYS MOWING

UNIT—

COST FOR UNIT FOR MONTH—

DATE—AUGUST—1922

COST FOR UNIT TO DATE—

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Rate	T'tl	Ex pen.	
Greenkeeper																		1																	
Foreman																																			
Laborers																																	39		
																																	36		
																			18													33			
Team																																			
Horse																			18																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals			

This article merely suggests how cost analyses could be standardized. If every club interested would keep some such system, results would no doubt show some startling disparities in costs, conditions would be ameliorated where needed, and something would be done toward that dream of a good golf course with membership at twenty dollars per year.

(Mr. West's article is particularly well considered. If golf clubs generally will adopt this or some other system, we will be able by experience to work out a classification of accounts that will be standard and comparable. It is believed that instead of keeping the daily cost cards suggested by Mr. West, less work will be involved if a daily time sheet is used, so that the costs can be taken from the time sheets weekly or monthly. In other words, every reasonable purpose should be answered and a good deal of time and work should be saved if the costs are figured once a week or once a month.

(Mr. West is correct in his statement that comparisons of costs will not be complete until they are on a unit basis. In other words, if one course has thirty acres of mowed fairway and another course has forty acres of mowed fairway, the cost should be reduced to a unit basis for purpose of comparison; but this need be done but once a year or at the time of comparison.

(The Green Committee will appreciate articles, letters, or suggestions from greenkeepers and committeemen.—EDITORS.)

A Convenient Way to Plan Hazards

DR. MAYNARD M. METCALF

The Orchard Laboratory, Oberlin, Ohio

In developing the artificial hazards (traps and bunkers) on the Country Club course in Leland, Michigan, we found it very convenient to lay them out on the grass with common white twine held in place by wire hair-pins. The white line showing the limits of the hazard could readily be seen from a distance of 300 yards and greater. We laid out every hazard in this way and then invited different sorts of players to play it with us, and did not put a spade into the ground until we had studied the hazard from the point of view of every type of player using the course. Every hazard was played for a week or more before it was built. Several different layouts of some holes were tried before the one desired was chosen and built. This method is slow, of course; but this is more than compensated for by the fact that experiment is thus possible without expense.

During the experimental period before the hazards are actually built, the members can see the plans, not on paper but on the ground at full size, and criticisms are freely offered—a thing which is of much interest and value to the committee in charge. These criticisms at Leland were discussed, and in numerous instances adverse criticism was changed to understanding approval. It tended to good feeling on the part of all concerned to have objections and suggestions thought over in advance.

Bermuda Grass at Richmond, Virginia

W. E. BARRET, *Hermitage Country Club*

Richmond is located below the Piedmont, above the Coastal Plain, a little far north for Bermuda grass and south of where the bents and fescues grow best. Our fairways, if kept rich, do not present serious difficulties, as the cool-weather grasses and summer grasses succeed one another as the seasons come and go. But the putting-greens, where it is desirable to grow one variety of grass, present a problem. Observation of a good, rich lawn in this vicinity shows much Bermuda appearing naturally about the first of June and increasing until frost, at which time old patches of redtop and bluegrass begin to strength up.

Falling in line with these natural climatic conditions, last fall (1921) at the Hermitage Club we seeded eighteen new greens (previously well prepared by liberal use of mushroom soil) with redtop. We had splendid germination, and by early spring the greens were remarkably good for new greens. They were opened for play the first of April, and stood up splendidly for two and a half months. Early in June we noticed slight deterioration, and by the middle of the month were convinced the redtop was going; and we decided at once to sow Bermuda seed.

Without disturbing the redtop then on the greens (which was still passably good), we spike-rolled and seeded Bermuda at about the rate of 5 pounds to 1,000 square feet, and top-dressed, using a dressing of one-half mushroom soil and one-half our natural soil. The last green was seeded on the 28th of June.

As a rule the greens were put back in play within ten days from seeding (as soon as the top-dressing had settled in and germination had fairly started), and were played continually from that time on right through the germinating period.

During the month of July the redtop gradually disappeared and the Bermuda rapidly increased. For two or three weeks the greens were seriously threatened with crab grass and other foreign growths, but extra labor was put on to cut this out and patch the holes with seed and top-dressing. The first of August found us with practically clean Bermuda greens, with no bare spots, and no redtop in sight. They have improved steadily since, and at this writing (nearly the first of October) they are thought by many to be the best putting-greens we have had in this section.

Observation and experience are teaching us, however, that Bermuda putting-greens can be greatly refined by judicious top-dressing. The white Bermuda stalks (even when there are no runners) rise above the surface of the ground, and when cut close enough for good putting leave the green with white stalky spots. This condition can be prevented by keeping the green filled to the top of these stalks with a fine top-dressing. Our experi-