

THE GOLF COURSE

A MONTHLY BULLETIN DEVOTED TO THE DISCUSSION OF MODERN METHODS AS APPLIED TO GOLF COURSE CONSTRUCTION AND UPKEEP

Turf and Golfing Turf

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ALTHOUGH I have long made a study of rapid turf production in all the countries of Europe, it was not until 1908 that the enormous development of golf in America attracted my attention to the courses in that country. A successful experience at the Brookline Country Club led me to make an extensive tour of the country, with a view of studying turf conditions. This was followed recently by a second trip, which has given me a very extensive knowledge of turf requirements in America, a subject which I now propose to discuss.

In order to discuss the question of turf intelligently, it is necessary to divide it into two sections, viz., Turf for the Putting Greens, and Turf for the Fair Greens.

Turf for Putting Greens

It is well to remember at the very start that a modern putting green is artificial both in its make-up and upkeep, consequently it may not be necessary or desirable to choose grasses that are natural to, or thrive best in, a certain district under natural conditions, but rather to choose those that are best suited to the purpose for which they are to be used. This, no doubt, sounds unscientific and all the rest of it, but when all is said and done, science is a

good servant but a very bad master, and the man with a good fund of common sense and knowledge of applying same usually gets the better results.

It has always been my opinion, and I state it here right boldly, that turf of the best English quality can be developed on putting greens anywhere in the sections of the country covered by my tours, provided that the greens are properly prepared, fertilized, and top-soiled, if necessary, so as to form a seed bed of rich, friable soil of a minimum depth of four inches, with all undulations fashioned with runaway surface outlets for storm water, or melting snow, in order to prevent as far as it is humanly possible any such accumulations when freezing and thawing conditions alternate, and when the natural or artificial drainage, as the case may be, is put out of commission by the frozen subsoil. The so-called Winter Kill is bound to occur if such methods are not adopted, and valuable time and money will be wasted.

A green made on these lines, and sown with a mixture of seeds, say, for the sake of argument, our Coombe Hill Mixture, should produce turf similar in all respects to that at Coombe Hill in any section of the United States and Canada that I have seen.

In support of my contention that the

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best English, or perhaps I ought to say British turf, as there is some wonderful stuff in Scotland and Ireland, can be produced in North America more or less to order, I bring forward the Country Club at Brookline, where they sowed the greens with our Mid Surrey Mixture, and have obtained greens equal to those at Mid Surrey Golf Club, Richmond, England, which means a lot to any one who has seen Peter Lees' famous productions at the latter club.

The greens at Brookline, especially the ninth, tenth and eleventh, taking them year in and year out, are, in my opinion, the best in North America, and whilst I may claim some of the credit of obtaining such results for myself, it is only fair to say I should not get it all—I explained how the greens should be made and sown, but if that club had not seen that my instructions were faithfully carried out, nothing would have been accomplished.

Before leaving the question of greens, I may as well give a few hints on the making and upkeep in tabloid form, so that they can be easily digested.

Always, if possible, arrange for early fall sowing, and regard the period between mid-August and mid-September as the selected moment. When the first rains come in the fall, the soil is so warm that the seeds germinate very quickly, and, if sown thickly, get well established and self-protecting before the winter sets in.

In the spring the soil is cold and, in consequence, the seed not only germinates slowly but it also grows slowly, and the young grass plants have to face the heat, and, more especially, the drought of the summer when in a very young, weak state, very often with evil results. Also, in spring, weeds and other obnoxious growths are much more prevalent than in the fall.

When making or contouring a green, remove the top soil, work with the sub-soil, and finish off by replacing the top soil in an even layer over the green.

The separation of the soil and the replacement of the same cannot be done properly by scoops, so it is always advisable that this section of the work should be done by hand with spades and barrows.

All drains should be laid before the top soil is replaced.

In making up greens, each scoop or barrowful as it is shot down should be carefully trodden, otherwise the surface will sink later.

Always, if possible, make surface runaways from undulations, otherwise water will accumulate with disastrous results to the turf.

Water freely during droughts and in the evenings, if possible, as best results are then obtained. The water applied at that time does most good and does not evaporate as quickly as it does if applied in the heat of the day. In any case, water freely, and remember that one good soaking is worth a dozen light sprinklings.

It is hardly necessary to state that pond or stream water of a natural temperature gives the best results, but where this cannot be obtained and the water is pumped from a depth, or city water is used, some means, if possible, should be taken to get it up to the natural normal heat by exposing it to the sun and air in a shallow pond or reserve tank, or if it is pumped direct, by laying the pipes close to the surface, where they will feel the influence of the sun.

If the latter system is adopted, draining cocks should be put in all low places, so that the pipes can be emptied in the winter; otherwise they will freeze and burst.

To avoid the tired, sickly appearance that turf gets after a long period of artificial watering, give it a monthly or bi-monthly dose of Complete Grass Manure, at a rate not exceeding twenty pounds per four hundred super yards, mixed before use with at least one hundred pounds of fine soil and humus. A light fertilizing, as above, will keep the grass growing and in good heart, whereas, if artificial watering is relied

upon alone, it just keeps it alive, especially if the water is hard, low in temperature, or contains any impurities.

Eradicate and destroy all weeds as soon as they appear, do not let them multiply, and remember that wire, witch, crab and September grasses get hold best in weak or exhausted greens. If you cannot exterminate the latter, keep them, like clover, in check by lifting the creeping or prostrate stems and branches with a close-toothed iron rake and mow closely; repeat this as often as necessary and use our anti-clover manure for the drought dressings when the trefoil is prevalent.

Topdress freely with a finely sifted compost of a light, friable, porous nature, rich in organic matter and humus, so as to reduce the plasticity of the soil if it is too heavy and to add body if it is too light, and when doing so remember that a cubic yard of compost will cover 144 superficial yards to a depth of a quarter of an inch, and that sixteen dressings at the above rate spread over, say, three years, will reduce the natural top spit soil of the dressed area to the secondary position of the subsoil, so there is hope for all greens, no matter whether they stand on sand or clay. The contouring and general preparation of a green is costly and its upkeep is more so, consequently it is the worst economy to be parsimonious when seeding. In England, with our warm, genial climate, we sow one ounce to a superficial yard and expect to get a close turf in a year or less, and when we are in a hurry we sow at the rate of two ounces per superficial yard.

In America and Canada, where the climatic conditions are, to say the least of them, extremely severe and difficult, the minimum rate should be two ounces per square yard, and the maximum four ounces.

Turf for the Fair Greens

A true golfing turf is composed of dwarf creeping grasses, which form a close-soled, springy sod, which is both a delight to walk over and play on, as it holds the ball from the ground so

that it sits up and looks at the player, and when a divot is taken the club cuts through the matted, fibrous roots of the grass without hardly touching the soil.

Turf which does not answer the above description is not golfing turf at all; it may cover the ground and make it look nice and green, and so mislead the casual observer, but it is worthless from a golfer's point of view, and that's all there is to it.

This sort of turf will pass with those who have not played on or seen anything better, but those who have can tell it at once by the way it feels to the foot and club.

As I have already explained, a true golfing turf is springy to the foot, and when a divot is taken the club slides through the mat of grass without hardly disturbing the soil.

Turf of the non-golfing quality, on the other hand, is uncomfortable to walk over, there being very little fibre under the foot, and it is difficult and unfair to the player, because the ball falls through it and rests on the hard, baked ground, which the club has to cut through to take a divot, a difficult and unpleasant stroke, which oftentimes jars the wrists.

Of all the clubs I visited in 1911 and this year, only a small proportion could show even a reasonably good turf on the fairways, and, as far as I know, there are not many clubs in North America that can at present boast of a true golfing turf.

This is a very bold statement, but if a golfer who knows what a true golfing turf is will make a tour of inspection in the same section as I did, he cannot but bear me out. That the results required can, however, be obtained, I stand convinced, and as proof of this would point, amongst others, to the Country Clubs of Detroit, Toronto, and Mayfield (Cleveland), where there is a young but true golfing turf—all having been sown in accordance with my system and with my mixtures.

To avoid any hair-splitting, I must say here that I have taken the courses as a whole, and have avoided all men-

tion of those that I have not seen or those that have some good or reasonably good turf and some bad.

I will now attempt to explain the reason for the lack of really good turf in America. In the first place, the best natural turf in the British Islands is found in locations that have been nibbled close by sheep or rabbits for years, and the best artificial turf where properly balanced mixtures of the finest grasses have been sown and where the turf has been closely mown from the very start.

These conditions suit the finer grasses which tiller out, mat and increase, whilst the coarser grasses die out to a very large extent. In some instances I have seen just the reverse happen; that is to say, a fine rabbit or sheep-fed turf has been saved for hay, which allowed the coarse grasses to gain the mastery.

Probably many of my readers have seen exactly the same thing happen on an abandoned green, which, I think, in conjunction with the above, conclusively proves that to get fine turf, close grazing or mowing is absolutely necessary.

Secondly, the great majority of the artificial or sown courses in America have been sown with venerable prescriptions propounded years and years ago for agricultural purposes, before golf was known out of Scotland.

I might state here, that eighteen years ago, not only was it considered impossible to produce fine turf from seed, but there was absolutely no demand for it; but when the game of golf took hold of the civilized world, I saw that the ordinary commercial mixtures of lawn grass seeds and the old methods of turf production must go by the board and new methods and new mixtures take their place.

The third reason is the antiquated idea that the indigenous or native grasses are best in their own sections or zones, because they are indigenous or native, an argument which absolutely bolts and bars the door to any sort of improvement and is as worthless as it is futile.

The fourth and last reason is the improper ratio in which the various varieties are used (even when the mixture is made up of the correct varieties), and also the thin sowing.

It takes years of patient observation and costly experiment before one is fitted to propound mixtures of grass seeds for a neighbor's lawn by propounding mixtures of which they really know nothing; yet quite a few persons are prepared to gamble with the prosperity of a golf club, when it is well understood that a club is, or rather should be, judged by the quality of its turf rather than by the comfort of its clubhouse.

I met one man who intended to base the prescription of grasses for sowing a course situated on raw sand from about half a dozen quaint little hand-watered trial plots, each about one yard square. He pointed out the grasses to me and asked me to note how well they stood on the sand without any fertilizer at all. The plots were barely a month old, and the expert evidently did not know that any grass seed will germinate freely and keep alive for months on a piece of cloth, or an old sack, or anything, so long as it is kept moist.

Another showed me with pride a course on which he had used almost every named grass procurable; he certainly had got a turf, but it was far better suited for dairy farming than golf, and the cost of it must have been simply cruel.

A third sent me out on a hot, dusty trip to see an "eye-opener" in the rapid production of fine turf by sowing fescues and bents, and when I arrived the perfect turf had absolutely no bottom and looked like a stubble field, as it well might, considering that the seed was sown in equal quantities of each description at the rate of one hundred and twenty pounds per acre. The significance of this will be better understood when it is known that the number of seeds that go to one ounce varies roughly in the different varieties from 14,000 to 500,000.

(To be continued)