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How Beaumont Got Facts

WHEN the eighteen grass greens at the Beaumont, Texas, Country Club replace the sand greens in use, they should be some of the finest greens in the south. If they're not the blame must be placed on the shoulders of some other than George M. Leith, secretary of that organization. Mr. Leith has scoured the country for information on greens and watering, employing in his search for information two of the most comprehensive questionnaires that could be sent out in quest of guidance.

The Beaumont questionnaire on the new greens was sent out with a letter which read:

"We contemplate in the immediate future the building of nine grass greens on the sites of our present sand greens, using temporary greens while construction and growth is in progress, and will be in the market for supplies of various



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kinds for these greens and their maintenance.

"Please send the undersigned all information in regard to supplies necessary and give prices so that we may have a general or approximate idea as to costs of construction.

"We also wish to have the benefit of your advice in connection with the attached questionnaire and on anything else that may occur to you not covered in this questionnaire, and beg to thank you for any assistance you may give in reply with your trade information."

The Green Questions

This letter was sent to the foremost green authorities in the country, and had, as its enclosure, the following questionnaire:

"Would you advise plowing up the sites of the present sand greens before attempting to assemble ground for the formation of the new grass green?

"We have a clay loam soil where the natural drainage looks good. Is it advisable to have other or auxiliary drainage features built into the green when building?

"Which type of drainage do you advise—tile, rubble, cinders, broken rock or gravel? Please give reasons.

"How near the surface should auxiliary drainage be located?

"In laying tile for drainage what kind of tile is used, and how is it laid?

"Would you advise seeding or using the vegetative method of developing our grass greens? Please give details.

"What kind of grass seed or stolons or runners do you consider best for our soil and climate?

"Give details of how to cultivate the kind of grass you think most advisable for our purpose here.

"After the assembly of the foundation soil including drainage, how deep would you advise the top soil to be?

"Should top soil be worked into lower or foundation soil? If so, how deep?

"I have been advised that Atlanta Bermuda would be the most satisfactory kind of grass to grow on our putting greens in this section—what do you think?

"I am informed that the German and Creeping Bents are not suitable for this climate; is that right?

"If we cultivated Bermuda grass on our greens, would we have to seed it to a winter grass in the fall—what kind of grass, if this is so?

"Where can the best and truest strain of Atlanta Bermuda be obtained?

"Is it better in cultivating a Bermuda green to cultivate from runners in a nursery and then lay out on green by the sodding method?

"Or is it better to set it out on the green sites and propagate?

"On a sandy clay loam such as we have, I plan to top dress the green site, before planting or seeding, with a mixture or humus of one-year old barnyard manure, sand, and good top soil in preparation 2-2-1. Does this procedure and proportion of ingredients have your approval?

"What artificial or chemical manures would you advise using with the above humus?

"Would you advise the use of chemical fertilizers to supply potassium, ammonia or nitrates?

"How is the need for any of the above chemical fertilizers determined?

"In planting Bermuda runners or stolons, how wide would you advise each row to be?

"What particular or general system of planting, watering, rolling and cultivation would you advise observing in the nursery development of Bermuda?

"Man on Job" Paramount

Now, with answers like the Beaumont club is getting, rich in the lore of green culture, it would seem like the future is assured, but there remains the one most important factor that is strictly up to the Texans to supply. That is the detail of labor and supervision on the job. One of the country's well known bent grass spe-

cialists says on this subject:

"The quality of the turf that is produced depends more on the practical knowledge of the man doing the job than on any other one element. No matter how wonderful a set of drawings may be, no matter how beautifully the course may be designed, if the man doing the actual work has no knowledge of agricultural processes, it is hard to educate him by letter.

"For instance, a short time ago I wrote out the most minute and explicit directions relative to planting greens, tees and fairways. This was for a wealthy club on which the chairman of the greens committee was personally directing the work. He bought \$5,400 worth of grass seed from me. He fertilized, he tried to follow every direction just as he thought I told him. In my directions, however, I neglected to tell him not to bury the seed up a foot deep. I thought he had sense enough to realize that a fine seed like bent should be simply sown on top of the prepared area and then simply rolled or if raked in-raked in lightly. I told him to seed at a certain rate on putting greens and then at the rate of about 100 pounds on the fairways. I simply told him that care should be taken not to plant the seed too deeply, taking it for granted that this was sufficient directions. Now this 'too deeply' stuff evidently meant very little to him. His idea of deep was apparently something around 40 feet, for after sowing this fine seed very carefully, he went on to his fairways with a tractor and a double disk harrow. The seed was put down to such a depth that it was never heard from again. It is a knowledge of these practical things that spell success."

Greens Answers.

Before us are some of the answers to the Beaumont green questionnaire. They are unanimous on the first question. The oiled sand should be entirely removed. One of the authorities consulted says that the grass greens should be located away from the sites of the sand greens. He states that he once planted over an area where sand greens had been dug two feet and then the spot well covered with new soil. Even to this day, he comments, the outline of the old green is distinctly noticeable by turf of a poorer quality. It is his belief that the oil penetrated the oil to a deep depth and has been working up ever since.

As to the drainage question, there is a

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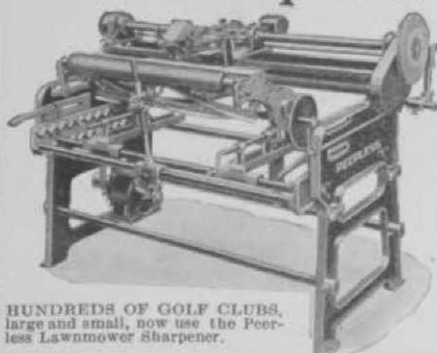
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cause if they are properly installed they will function indefinitely. Trenches filled with broken rock or cinders clog after a while. One of the authorities consulted states, "There is a distinct vertical circulation in all soil, which aids in plant growth, and any obstruction you would get by drainage by any method other than by tile would interfere with this circulation and hinder the growth of the grass. However, the authorities consulted bear heavy on the opinion that if the sub-soil is of an open "gravelly" character, the drainage will not offer much of a problem.

Relative to the depth to which the auxiliary drainage should be located, 24 inches to 26 inches, covers the scope of answers, with the supplementary information that if the soil is very plastic the drainage should be about 18 inches below the surface and the lines should be closer together.

About the tile, the answers nearly all agree on a good grade of farm tile with one writer suggesting that Armco metal drainage be used, pointing out that some excellent results have been obtained with this newer material. One authority states, "trenches should be dug with bottoms having a uniform fall of not less than four inches to 100 feet of drain. Do not change to a grade less steep in going toward the outlet, otherwise the tile in the lower end will become clogged by sediment. Lay the tile end to end with the joints as tight as you can make them without using cement or other water-proofing to cover them. Be careful. One tile out of line may destroy the usefulness of the whole system." "Cover with six inches of cinders" is another's advice.

On seed vs. stolons, the balance inclines toward seed, but it is a toss-up. One suggests vegetative planting with possibly a small amount of seed. "Seeding is cheaper, vegetative more certain; but both have advantages and disadvantages," comments one of the oracles consulted.

The authorities answering are unanimous in answering "Bermuda" to the seventh question from Beaumont.

A digest of the additional answers to Beaumont's green questions, and the array of questions and answers that prepared the club to handle its watering problem will appear in the November issue of GOLFDOM.