

plies the plants with much needed drink and, through evaporation from the soil, moderates the temperature of the ground around the roots and so affords some protection from the heat. This is a point to be watched most carefully as a day's neglect may result in severe scorching of these roots which are soft and succulent, particularly so if they are used to liberal sprinkling. The quantity of water that is required is a matter of individuality of the green and also the habit formed from the quantity it expects daily. Thus a green heavily watered is more quickly affected when water is withheld than one that has to get along on a meager supply. Water must be used discriminately, with due regard to the soil underlying the turf, location exposure, weather, atmospheric humidity and so on. Over saturation of the ground will suffocate the roots; too much surface moisture over too long a period will promote algae, slime and fungus growth that will throttle or penetrate the living grass.

Mid-Summer Mowing

Further protection of the roots should be afforded by setting up the mowers. Scalping the greens at this time is courting trouble. Observing nature's scheme we find that at this time of year the grass roots are well safe-guarded from the sun and heat, by the stems and foliage. While not able to shade it as generously, still, the extra length that we can allow will be beneficial and will help in preserving the color of the green. The scantier the turf, the greater the danger from root exposure. This precaution does not apply only to the greens but all mowers may be set up a trifle. The grass on the fairways is not growing quickly at this time and the balls get tremendous runs because the ground is dry and hard; this may be checked a mite by the extra length allowed the turf.

All in all, the troubles that beset the greenkeeper during the mid season, come largely, as a logical sequence following the system of management prior and approaching this critical period. The hot weather will come just as certainly as the seed time and harvest and the right time to prepare for it commences at the opening of the season. In the spring we have favorable weeks in which to fatten up the greens and make them strong, vigorous and hardy. Then by using all reasonable methods of precaution, we may feel fair-

ly sure that they will ride the crises easily. In the regions where fungus disease is rampant we will always have that demon lurking near at hand and can do no more than use whatever preventive measures we can afford and prepare to attack boldly whenever the spectre lifts its head, remembering that one ounce of prevention is worth a pound of cure.

Then, with the mind as much at ease as the cares of the greenkeepers position will allow, what better time is there than during dry, sunny days, to set about preparing the autumn supply of compost.

Mid-Summer Methods in Nebraska

BY J. O. CAMPBELL

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KEEPING plenty of moisture in the ground is the first essential in correct mid-summer care of a golf course. Water well the aprons and approaches to protect your putting surfaces from drying in from the outside.

Compost every 24 to 28 days, with good rich compost mixture of 50 per cent sand, 35 per cent animal fertilizer (preferably horse manure) and 15 per cent of good top soil. Use treatment for brown patch as occasion requires. I have had good results with pure calomel. Apply sulphate of ammonium at the rate of 1½ pounds per 1,000 square feet of putting surface, once every 10 days. This should be applied late in the afternoon. Use plenty of water after each application.

Use ammonium phosphate every 30 days at the rate of 1¼ pounds per 1,000 square feet putting surface. Follow this application with plenty of water also.

Mow greens every day. Adjust the mower to the proper height and never change it during the mid-summer season. To change it will cause your turf to become very fluffy, making a bad putting surface. Greens should be watered at night during this season, using water from 7 p. m. to 6 a. m. Blue grass or clover tees may be watered any time, day or night, just so they are kept moist and in good growing condition. It is a good idea to give tees an application of ammonium phosphate every 30 days. We follow this plan and have no trouble with our tees.

Fairways should not be mowed too often

or too close during hot weather as this causes the roots to become exposed to the hot sun, thereby causing a great loss of grass.

Don't reduce your maintenance force! Watch your water supply closely and keep it in good repair.

I would like to hear through Golfdom the hot weather methods of other greenkeepers. We have very little rainfall and lots of hot winds in this section and the procedure I have described above enables us to handle the situation quite well.

A Longer Term for Greens Chairmen

By C. B. HILLS

THE greens chairman occupies a peculiar position with his club. The ideas he puts into practice depend for their success upon the "time" element. A man may little more than start a maintenance program or get no farther than "first base" on some grass-growing experiments when his term expires. His findings may be of immense

value to the club he serves yet he is apt to have half-truths by the time the annual election is held. The next man in office may continue his predecessor's theories or he may not. Perhaps he isn't of the experimental type. He may have been chosen greens chairman because of a pleasing personality or a noticeable amount of leisure.

When the wise heads who framed our constitution adopted a four-year term for Presidents, they decided that a man couldn't put over a constructive program in less time. So it is with the humble yet vitally essential office of greens chairman. He can't make grass grow overnight. He can't test all the worm killers and the brown patch cures in a short term. He can't work out the multitudinous problems of his administration in a year or even two years. In fact, he needs more time than that to become familiar with the best sources of supply for items that come within his jurisdiction.

Why not inaugurate a three- or possibly a four-year term for greens chairman? The right man will more than compensate for the less capable if such a policy is adopted.

Getting the Greens You Want

By FRANK W. CURRIER

Greenkeeper, St. Thomas Golf and Country Club

WHEN you build greens one of the first things to realize is that you can't hurry nature if you want permanently satisfactory results. Building and grading should be done at least three months before seeding or planting with bent so you will get greens that won't sag or sink.

The quickest and cheapest method of building greens starts with the employment of a team and scraper to take off the top eight inches of soil and sod, distributing it around the edges of where the actual green is to be so it will be handy for return to the green. When this is done the subsoil should be ploughed about four to six inches deep. Let it dry out for several days then harrow, level and roll.

The next matter is drainage. This all depends on the condition of your land. If the land is sandy it is unnecessary to drain unless the greens in a hollow, sur-

rounded by hilly land. If the green is on level ground or elevated, drainage offers no perplexities as the sandy soil will take all the water and allow quick drying. On heavy clay or loam it is absolutely necessary to pay particular attention to drainage, otherwise you will have lots of trouble that could be very easily avoided by proper care at the time of building.

It is my opinion that much of the trouble with worms and brown patch really is the result of faulty construction of greens. Improper drainage and excessive watering, I have noted, are certain forerunners of the dread grass disease. Too strong use of "dopes" for treatment tends to impoverish the soil and this, together with forcing methods and too close cutting early in season, makes the greens ready victims of brown patch. I haven't had an inch of it in the last 10 years and I am satisfied that it is because