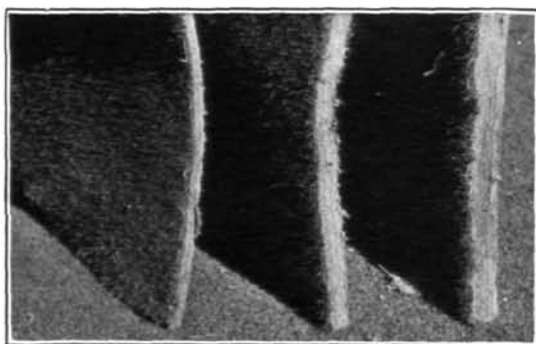


ground each day the evaporation of yesterday; and finally, that creeping bent greens should be given special care until they are fully developed for play.

How Thick to Cut Sod for Putting Greens

In September, 1924, an experiment was inaugurated at the Arlington Turf Garden to test the matter of sodding—that is, the thickness at which sod would establish itself best when transferred to a new surface. The kind of sod used in the experiment was mixed creeping bent and velvet bent.



Three pieces of turf of mixed creeping bent and velvet bent respectively $\frac{1}{2}$ inch, 1 inch, and 2 inches thick

The sods were cut at three thicknesses, namely $\frac{1}{2}$ -inch, 1 inch, and 2 inches respectively. The preparation of the receiving soil bed for each thickness of sod was the same, except, of course, that the bed for the 2-inch sod was 1 inch deeper than the bed for the 1-inch sod, and the bed for the 1-inch sod was $\frac{1}{2}$ -inch deeper than the bed for the $\frac{1}{2}$ -inch sod, the desire being to have

a level surface over all the sods after they were laid.

The soil surface was thoroughly watered, and then the sod was laid immediately, rolled lightly, and then watered again lightly. These plots were watered liberally each day for a week after the sod was laid, and the grass was kept mowed to putting length. At the end of the week a piece of the sod in each series was lifted to see if the roots had taken hold in the soil below. These showed that the roots of the $\frac{1}{2}$ -inch sod had taken hold firmly in one week, while neither of the other sods had sent any roots down into the soil below. This examination was repeated in another week, when it was found that the $\frac{1}{2}$ -inch sod had become so thoroughly attached to the soil that it could not be lifted without breaking the roots or cutting under the sod. The 1-inch had at that time begun to send a few scattering roots down into the soil below, but the 2-inch sod could be lifted as freely as when it was laid, it having established no root-hold in the under soil. This examination was repeated every week or ten days until after frost, which was about seven weeks after the experiment was started. The latest of these examinations in the fall disclosed the fact that the 2-inch sod had not become attached to the soil underneath, while both the others had become attached firmly. There was no noticeable difference in the turf as it went into the winter, but an examination the following spring as soon as the frost had gone out of the ground, revealed that while the 2-inch sod had become attached by roots to the under soil, nevertheless, due to the action of the frost, it had become slightly raised over the others and presented an uneven surface.

These experiments, while only preliminary in their scope, indicate that the thinner sod is cut the better will be the results on the putting

greens when it is properly watered and otherwise cared for. The thickness of $\frac{1}{2}$ -inch was found to be the minimum thickness practicable with bent sod.

Fighting the June Beetle with Caddies

By DeWitt Gallaher, Kanawha Country Club, Charleston, W. Va.

On July 1, 1925, I noticed that the June bugs were boring into our greens to deposit their eggs. I found them forming around the greens, and nowhere else. We offered the caddies a bounty of 50 cents a hundred for the captured bugs, male or female. From that time until July 8 we paid \$25 for 5,000 captured bugs. We found each female bug was prepared to lay about 40 eggs. Presuming that half of the captives were female, we have exterminated what would amount to 100,000 grub worms that would become pests the latter part of August and September. In combating the grubs the preceding year we found that two men, working continually, extracted from the greens about 200 grub worms a day apiece, at a cost of \$8 per day. Eight days after we put the caddies on the job practically no June bugs were to be seen on the premises. Of course, we did not get all of them, but I am sure that in this way we have saved ourselves a lot of expense and trouble for August and September.

July Experiments For Control of Brown-Patch On Arlington Experimental Turf Garden

By John Monteith, Jr.

During the first two weeks of July there was a severe attack of large brown-patch in the vicinity of Washington. At the same time it was reported unusually prevalent in numerous other sections of the country. After the 15th there was practically no active large brown-patch on the Arlington experimental plots. The small brown-patch, however, continued to develop throughout the month on the more susceptible strains of grasses. These attacks offered an opportunity to test the effectiveness of the various disinfectants in controlling the two types of injury and also showed to what extent previous treatments could be relied on to prevent new attacks of the diseases.

The promising control obtained during the last two years at Arlington and elsewhere with various organic mercury compounds and the contradictory results reported from different clubs induced us to lay special emphasis on rates of treatments with these compounds. The chlorophenol mercury under the trade names of "Semesan" or "Uspulun" is the form which has been most generally advertised and distributed among golf clubs and for that reason received priority in the experiments this year. In these tests the chemicals have been applied at different stages in the development of the disease; on numerous strains of grasses; under various weather conditions; at different times during the day; and in general the tests were planned to give as much variation as it is possible to obtain at any single station. The results have been often contradictory, and indicate why clubs have found that in some cases the applications have not given the results expected. Some of these failures are no