

cutting that close as soon as there was anything to cut, and will say we have a wonderful green there now with excellent turf. Our soil being heavy yellow clay, we scouted around the country to find suitable soil and finally found a real sandy loam, which we hauled with trucks and put about 7 inches on each green before sodding. We raised a sod nursery of bent and year before last reconstructed six greens and sodded with bent sod, replanting the nursery for the following year's work on greens. Last year we rebuilt five greens and have six left to do this year, then we will have 18 bent greens. Have twelve now and they are all coming fine. Our number 15 was about two-thirds killed out with snow mold this spring, and we tried seeding the spots with very poor results. We decided to re-sod the part killed out as we had plenty of bent sod left in our nursery.

Our nursery covers approximately 43000 square feet. After this year we will maintain about enough for 2 greens in case we need it.

Have had a lot of help out of the Green Section bulletins and feel that The National Greenkeeper is going

to give as much if not more help. Find the various articles very interesting and helpful and think that Mr. Morley was on the right track when he started the National Association.

I have a crew of 14 men divided as follows: One man cutting fairways which we cut three times a week; one man cutting rough and general hauling; two men for night watering for fairways and greens; six men for cutting greens, tees, etc. Each man has three greens and tees to take care of and also taking care of trimming bunkers on those fairways; one man to take care of the nursery; one man to rake bunkers; one man for the garden, which is under my care this year, and one man for all around work.

Have started a system of maintenance costs this year to keep an account of the different classes of work.

Greenkeeping is truly a great game and I intend to follow it up. I find it very interesting as there is plenty to think about. The main thing is co-operation of the chairman and greenkeeper and I have been very well treated in that respect. If we had more chairmen like ours we would have better golf courses.

Sand Greens in South Dakota

By LE ROY JOHNSON

Greenkeeper Yankton Golf and Country Club, Yankton,
South Dakota.

ALTHOUGH we do not have grass greens, we meet up with some questions of maintenance that I believe are greater problems than any of the greenkeepers of eastern clubs have to contend with.

We are beyond the belt of good bent and other good grasses for fairway turf. We have seasons of no rain, and we have no watering facilities for the course. If we had a medium to average rainfall, or water, we could maintain a good turf, but without either, let any greenkeeper "try and do it."

We have sand greens, and would like to hear from those who have a success or a near-success with them. I am having better luck with my greens at present than I did last year. Our greens get so hard it is impossible to putt a well directed ball, but I have recently been commended by our club president on the condition of the greens.

Our greens are constructed of clay and sand, just enough sand to keep them smooth, and enough oil to keep the clay soft and yet firm. I use oil from automobile crank cases, a fifty-two gallon barrel to each green. I put the oil on the clay after leveling out the marks and rough spots, then put the sand on with a

shovel and spread it with a float I constructed myself.

Spreading Sand with Wooden Float

This float is a piece of 2 x 2, cut 4½ feet long, bolted to a handle in the form of a T. I made a bevel cut on the lower edge of the handle, about forty-five degrees, so as to get a good smooth floating surface.

I start directly at the cup and around, then I cross the green from cup out to the side. Then I finish from the cup out in a circle. When the job is finished the green looks like a plastered surface.

I use oil every time the green gets a good washing rain, as the oil seems to disappear into the ground after a heavy rain or during a hot dry spell. The worst time we have with sand greens is late in the fall when the frost starts, and early in the spring when it begins to work out of the ground. The greens have a tendency to sweat and heave, get terribly soft from the oil, and no amount of rolling does any good.

I would certainly like to read something written by a greenkeeper who has made a study and a success of the maintenance of sand greens, but I do want to say that I enjoy the NATIONAL GREENKEEPER, and hope to get some more good advice on turf culture.