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## **Putting Green Maintenance**

The last issue of THE BULLETIN contained a discussion of the many problems involved in the construction of a golf course. The present issue is devoted to a consideration of the problems of maintaining the most expensive areas on a golf course, namely, putting greens. In our last issue it was pointed out that faulty construction may be responsible for much bother and expense in maintaining greens. In such cases advice on maintenance will be of little avail until some corrective work is done or until greens are reconstructed. It is the purpose of this issue to outline a few of the methods which have proven to be effective in maintaining good turf on putting greens

that are in general properly constructed.

We include here a number of opinions from several successful greenkeepers. It will readily be seen that the details of caring for greens are in no two cases exactly the same. We do not presume to pass judgment on them nor to try to outline any "best method" for clubs to follow. We realize fully that there is no such thing as a "best method" for maintaining putting greens under all conditions. As far as we know, mankind in handling any of nature's living things has yet to devise any system which offers no possibilities for improve-The writers of these separate articles would no doubt each agree that his own method has many flaws for which he may be able to work out solutions himself in the years to come. By offering their articles to other courses through the pages of THE BULLETIN, the greenkeepers will no doubt help many experienced as well as inexperienced men in handling puzzling problems. Even though he may have been caring for greens many years, it is a poor greenkeeper indeed who is unable to learn something which will improve his own methods by comparing his with the practices of his fellow greenkeeper.

In this collection of articles we have many different sections of the country represented, with different soil and climatic conditions to contend with. They also deal with turf of different grasses; various strains of creeping bent planted vegetatively, mixed seed, annual bluegrass (*Poa annua*), velvet bent, and others. In one case an article deals with greens that are ancient (as putting green ages go in this country), and in another the course is new. In one case a greenkeeper may have a liberal budget; another may be extremely limited. One represents a region where large brown-patch is a continuous menace; another is from a course where this disease is of little importance. Other variations might be called to the reader's attention, but since many of them are pointed out in the articles themselves it is unnecessary to dwell on them here. We merely wish to call attention to the necessity for making allowance for these varying conditions if one is to read the discussion intelligently.

In reading these articles it is interesting to note the variations in the use of compost; the materials used, method of handling, rates and time of application. It is also interesting to note the different methods used in applying fertilizer and other chemicals. Even such a simple process as mowing the greens has variations. This great variety is found to exist not only as between different courses but it is shown that methods may vary somewhat for different greens on the same course. We realize that this collection of articles may cause some little concern among those greenkeepers and club officials who still cling to the fetish of "standardized methods" in greenkeeping. Before judgment is passed, however, it would be well to again be reminded that, even though criticism of some of the minor details may be fully justified, the fact remains that in each case the writers have demonstrated that under their own conditions these methods have produced good putting green turf, including the turf on which three of the major national matches were played this season.

## Experience with Creeping Bent in Virginia

By George T. Cunningham

The creeping bent turf of the putting greens on the two courses of the Country Club of Virginia, near Richmond, is still, relatively speaking, in its early stage of development. Opportunity has been afforded the writer to witness some features in the conditioning of this turf which may be of interest to readers of THE BULLETIN.

At the James River course the turf is one year old, and at the Westhampton course it is two years old. On both courses the greens were planted with creeping bent stolons. The greens at the James River course, which were planted with Metropolitan bent, are practically pure, notwithstanding the appearance of some crab grass and other summer grasses, including silver crab grass, locally known as "bull grass," and a small amount of Bermuda, all of which have been picked out. In the early spring an enormous quantity of weeds of various kinds appeared, necessitating a tremendous amount of work in cleaning the greens before a solid turf could be secured. A large proportion of these weeds consisted of blueweed, which, under putting green conditions, produces a rosette-like plant somewhat resembling the dandelion. No annual bluegrass (Poa annua) was in evidence on the James River greens, but during the winter and early spring approximately 20 per cent of the Virginia bent greens at the Westhampton course was annual bluegrass. Blueweed and all kinds of crab grass have been much more of a problem at Westhampton than at James River, largely owing to the facts that near most of the greens at Westhampton slopes exist from which large quantities of weed seeds are annually washed upon the putting greens, and cultivation was very clean and frequent at the James River course before it was seeded. During the winter it was necessary to remove blueweed from the Virginia bent greens, and this was the only weed evident in the turf at that time of the year. In our attempts to control annual bluegrass the coming season the blades of the mowers will be set high enough to cut the tops off the clumps of the annual bluegrass and leave the dormant creeping bent untouched.

During hot, dry weather the greens were watered daily starting at 6 o'clock in the morning during July and August and 7 o'clock