

## Creeping Bent Fairways Need Rough Treatment

By O. J. NOER

The turf on the best watered fairways in the North is all, or in large part, bent grass. Eventually the creeping types predominate and may become the only kind of permanent grass. Then frequent close cutting is necessary to keep a tight turf which is pleasing to play.

For fifteen years the watered bent fairways at Milwaukee Country Club were among the best on this continent. Except during the World War, they were cut three times a week at one-half inch or less, and were fertilized generously each fall.

During a bad hot spell in August, 1947, localized dry spots developed in the turf on sloping fairways facing the south. The spots were exactly like similar ones so common on many greens with heavily matted turf. The grass turned blue first, and showed footprints badly. Withering and death followed, leaving ugly spots. Examination disclosed a heavy surface mat of turf, with an accumulation of partially decayed stems and leaves of one-half to one inch thickness. The root system was very shallow and very inadequate in amount. Wilting occurred despite an adequate quantity of soil moisture below the top inch or so. Roots were too shallow and capillary movement upwards too slow for grass to use it. Light watering before noon and again in mid-afternoon would have kept the grass green and prevented loss of turf. Frequent light daytime watering was impossible because of the acreage involved, and the inability of the old water system to apply water quickly over large areas.

Fairways started to become green in the spring of 1948, but then the grass on the slopes facing into the direction of the prevailing winds turned brown and looked very dead. There was very little snow; the weather was dry and windy with no rain until late May or early June. It was a bad spring for evergreens also, they were severely windburned. The turf was still without a deep and extensive enough root

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(1) Localized dry spot injury on a watered creeping bent fairway, facing South. The turf was heavily matted and shallow rooted. (2) Each September these creeping bent fairways are aerified to thin the mat and to promote the penetration of air and water into the soil. Aerification develops a deeper root system. (3) The surface of the fairway looks like this immediately after aerifying. (4) Soon after aerifying, a West Point Links Mat is used in the opposite direction to crumble the soil plugs. The crumbled soil acts as a top-dressing.



*Front Cover: This is the 385 yd. 10th hole of the Town and Country Club course, St. Paul, Minn., one of the oldest courses in the U. S., golf having been played here for the first time in 1893, five years after club was founded. The USGA Womens' Championship will be played here Aug. 20-25.*

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system to withstand the drying effect of the strong, continuous winds.

The bad areas were sprayed with sodium arsenite when knot weed was in the two to three-leaf seedling stage. Then they were aerified and cross-disc'd to prepare a seed bed. Light seeding with Colonial bent followed. By mid-June the turf was as good as ever before. New growth from surviving nodes on seemingly dead stems appeared to be responsible for more of the new growth than the seed.

The turf on all the fairways went through 1949 without any trouble. Most of the mat was gone, and root systems were more extensive and much deeper. The absence of any windburn injury despite another dry spring was attributed to the deeper roots as a result of soil cultivation by the aerifier.

The fairways were aerified in September, 1949. It is proposed to make this routine practice every fall, and in spring should an excessive mat develop anywhere. The turf was tight and deep rooted by late fall, 1949, so it was not necessary to aerify in the spring of 1950.

The procedure now being followed is to aerify, then follow with a drag mat to crumble the soil plugs and then mow. The aerifier starts along the outside on one

side of the fairway and circles back along the edge on the other side. The finish is down the center. The drag mat is used in a similar manner, but in the opposite direction to the aerifier. Soil plugs are allowed to dry slightly before being matted because experience shows they shatter better when a trifle drier, but they must not be allowed to become too dry. Two tractors are used, one for the aerifier and the other for the drag mat to save time and permit instant matting when the soil plugs shatter completely.

Some clubs use the rotary hoe to cultivate, and others cross-disc with an ordinary farm disc. A good drag mat can be made by attaching a section of wire fencing to a length of 2 x 4, or a piece of iron pipe.

## Greenkeepers Change Date of National Tournament

National Golf Course Supts. Assn. has changed date of its annual golf tournament and field day to Sept. 10-11 at Purdue university, Lafayette, Ind., instead of Sept. 17-18. Change was made at suggestion of Purdue turf research men who advised more accommodations at Purdue Union would be available on Sept. 10-11.