

ditions. However, sand bunkers do highlight a green by the color contrast provided."

"The tendency in our area is to remove sand traps from the fairways, but to keep them around the greens and perhaps add more."

"Rough grass will take the place of the sand bunker only in the case of economic necessity."

The rough hollow will undoubtedly come into increased use.

Bunker Renovation

by EDWARD J. CASEY, Superintendent, Baltusrol Golf Club, Springfield, N. J.

Renovation of bunkers is a recurring item in maintenance operations. The turfgrasses deteriorate and the sand becomes old and dirty; we accept this as normal. Beyond that are three factors which strongly influence overall deterioration of bunkers:

1. Location and design: These are controlled by the requirements of the game. The more difficult the location, the more critical the design.
2. The isolation of bunkers relative to maintenance: Bunkers are individual and isolated maintenance problems. They cannot be quickly and efficiently mowed by gang units.
3. The isolation of bunkers with regard to irrigation: They cannot be efficiently irrigated individually with the present systems which water everything in the general green area. Presently the putting green, apron, traps, bunkers, and rough adjacent to green are all watered when sprinklers are turned on.

Experience taught that irrigation in and around bunkers was necessary if the job was to last. Therefore, pop-up sprinkler heads delivering 1½ gallons per minute were installed 12 to 14 feet apart throughout the bunker, conforming with design. **We now know that this system irrigates without wetting the sand.** Baltusrol's lower course has 126 bunkers. Of these, 100 were irrigated by an average of 10 heads per bunker. The largest required 82 heads.

In preparing the bunkers for improvement, the old sod was stripped off and the area was cultivated with grub hoes, thereby removing a thick rootbound layer. Topsoil was added and then limed, fertilized, and sodded. Two bunkers were redesigned, one of them a monstrous bunker which crosses No. 17 fairway. Of the 126 bunkers on the lower course, the site of the 1967 United States Open Championship, 105 were renovated.

Improving the bunkers further, 700 to 800 tons of sand was removed and replaced with 1,500 tons of new sand. This is a lot of material to handle!

Small sprinklers around the edge of bunkers keep turf healthy without wetting sand.





BEFORE—Difficult to maintain bunker complex across the 17th fairway at the Baltusrol Golf Club Lower Course, where the 1967 United States Open Championship will be played.

AFTER—With a new arrangement, all turf areas are easily accessible to mowers. It's prettier, too.



The Finishing Touch

by DENNIS SNYDER, Superintendent, Scioto Country Club, Columbus, Ohio*

Like many of the fine clubs built during the early 1920's, Scioto has had its highs and lows in condition and activity. During the late 1950's and early 60's, however, the membership began to realize that Scioto was no longer the golf course it had been. They reached the conclusion that a 40-year period had taken its toll. During the next seven years, a gigantic overhaul was planned and implemented. This was the program:

1. 1959: Fairways were sterilized and seeded to bentgrass.
2. 1962 to 1964: The entire 18 holes were redesigned and rebuilt by a leading architect.

3. Four new tenico tennis courts were built in the Spring of 1965.

4. 1966: Construction was to include two additional swimming pools, a new golf cart storage building for 36 carts, new golf course maintenance facilities, new half-way house restaurant on the golf course as well as a complete overhaul of the main clubhouse, which includes additions to the golf shop and kitchen.

5. Last fall Scioto began to relevel and rebuild all of the tees which settled badly during reconstruction. This will be completed later this year.