

QUESTIONS FROM THE FLOOR

By LEE RECORD

Mid-Continent Director USGA—Green Section

Q: *With rising labour costs, omission of daily maintenance practices has become a serious problem, especially with sand trap maintenance. What is the best particle size sand to use in sand traps or should we change to grass bunkers?*

A: Selecting the sand which is to comprise the bunker is of utmost importance. There are uniform systems of classification which can be used as a guide for sand selection. The National Bureau of Standards (U.S. No.) and American Standard for Testing Materials (A.S.T.M.) are two systems of classification. The classification systems are based on particle size.

The best particle size for sand traps is a very coarse sand (1 mm. in size). From an economic standpoint it may be quite costly to obtain sand this uniform size because of the special screening that would undoubtedly be required. Particle size may easily be reached in some localities, however, individual grains have to be examined closely. Rounded grains will leave the sand too loose and golf balls will be buried too deeply. It is preferred that angular grains be used rather than rounded ones.

Particle size too, affects the speed of play. Any sand exploded on a green over 1 mm. may result in players picking up each individual grain. Mowing equipment may easily be dulled or knocked out of adjustment from large particle size.

Sand in traps cannot be hard to handicap the golfer who already is in a hazard and is being penalised. Normally, a golfer should have an option of playing a "clean" shot, picking the ball clean or to "explode". Depending upon the banks of a bunker, an explosion shot is the normal shot used. Sand that is too hard prevents this type of shot. A

normal sand wedge has a flange at its base; this flange is thick and it must have soft sand to execute the explosion shot. A wedge being used on hard sand bounces off the sand and all ball control is lost.

The condition of traps around greens should consist of a soft, coarse, uniformly raked sand. The depth of sand in these traps should be from four to six inches.

Depending upon particle size of sand, it will take several months up to a year for sand to settle properly. A uniform, coarse sand of the 1 mm. particle size will take several months, while silica sand, a by-product of the glass industry, will take a year or so.

Sand should offer a hazard. The ball should bury up to one-half its depth or less. It should not sit up on top to provide a clean shot. The sand bunker should be a fair hazard; sand should contribute, not minimize the hazard.

Should the decision be to convert to grass bunkers, grass would ease maintenance time required above that of sand. It might also speed up play, as footprints or steps would not have to be retraced or raked. Traffic patterns would not necessarily be worn around greens as they presently are. Grass, however, would not be as attractive as sand. Sand provides a visual aid for the golfer to the target area. A normal height of cut for grass bunkers would be between two and four inches.

Questions that will face many club officials and course superintendents will be either continuing to meet the high cost of daily sand bunker maintenance or of gradually eliminating unnecessary sand bunkers and establishing grass bunkers in their place.

*With acknowledgements to
"The Golf Superintendent"*