

# Merits of sand

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Sir,

The article in your October issue about sand for golf courses, reproduced from a publication of the United States Golf Association, is of much interest to one who was involved, some two years ago, in assessing the merits of various sands for bunkers.

The references to 16 mesh and 60 mesh screens and the particle size ranges used in the United States to define coarse, medium and fine sands do not appear to correspond with British practice. Here, coarse sand particle size is 2.0 to 0.60mm., medium sand is 0.60 to 0.20mm., and fine sand is 0.20 to 0.06mm. There is a range of British Standard sieves from No. 7 to No. 200, to cover the classification of sands into these grades. In the United States, coarse sand is defined to be smaller and fine sand to be larger than the British grades.

The specification recommended for bunker sand—1.0mm. to 0.25mm. with 75 per cent in the range of 0.5mm. to 0.25mm. and preferably of rounded particles—may well be ideal. The nearest specification in British terms would be that all should pass a No. 14 sieve (1.2mm.), 75 per cent should pass a No. 25 sieve (0.60mm.) but be retained on a No. 52 sieve (0.30mm.), and all should be retained on a No. 72 sieve (0.21mm.), but where can sand in such a narrow range of size be obtained at any reasonable cost?

The quantities of sand used by golf clubs are insignificant in a supplier's output and to produce to such a tight specification would probably be very costly. Sands of such a type may be found naturally in certain isolated locations but, unless the golf course is nearby, transport costs will make purchase out of the question.

It would be useful to have comment on the U.S. specification from knowledgeable sources in this country, and to know if the sands in bunkers on championship courses such as Muirfield, Royal Lytham and St. Annes and others are to any particular particle size specification.

Experience of playing a number of good, but not necessarily championship, courses suggests that bunker sand is often that obtainable at least cost, sometimes with a silt and clay content, soggy in wet weather and caked hard in dry. The player suffers a twofold penalty.

Two years ago no specification for bunker sand could be found, so in general terms the criteria were freedom from silt and clay likely to cake and obstruct free drainage, avoidance of very fine sand liable to be blown away by wind, a maximum particle size unlikely to damage mower blades, freedom from organic matter, and a neutral but not alkaline condition.

Regard was also given to Mr. F. W. Hawtree's statement in the British Golf Greenkeeper for October 1971: "Our inland sites use a coarse washed sand free of fines at one end of the scale and of small stones at the other. An even particle size gives the least binding."

The list of criteria could be expanded, but how much better it is to state, as our American friends have, a specification that is clear to all sand suppliers, understandable by those responsible for the construction and upkeep of golf courses, and covering a material acceptable to players.

Playing acceptability, not mentioned by the American source, is important. Golfers expect sand in which the ball will not plug and in which footmarks are minimal. Sand depth is also relevant.

One problem is that only sands used commercially on a large scale, for

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example, in the construction industry or for water filtration purposes, are available in the United Kingdom at reasonable prices. Furthermore, the technical specifications for these sands to which suppliers habitually work often permit a wide range of particle size, so that insistence on close limits may cause difficulties.

Thus a lowering of standards from the ideal becomes inevitable to cost-conscious golf club committees who may be ill-equipped technically to distinguish good sand from bad.

In the experience of two years ago, it was found that the cheapest sands were contaminated with silt, clay and organic matter. Better sands, at up to twice the price, tended to be too coarse, with too great a proportion over 0.60mm. in size or too fine with too great a proportion less than 0.30mm.

The best sand, which may have approximated to the American specification, was available only from a distant source and was priced at about three times the sand actually purchased, and about six times the cost of the cheapest local product.

It is not suggested that bunker sand should necessarily be standardised throughout the country. To go so far might detract from the individual characteristics of courses in widely differing environments. Nevertheless, guidance from some recognised authority would be welcomed and would help to improve golf course standards.

Who in this country will confirm the American recommendations and express a view on the tolerance that may be permitted in the interests of cost without impairing the playing qualities of the sand?

Your action in reprinting the American article is to be applauded and may stimulate further comment from the experience of others and from sand suppliers, followed by the authoritative guidance suggested.

# NEWS

WELCOME to our new chairman, Mr. E. R. James, head greenkeeper at Parkstone Golf Club, where he has been for the past eight years. Mr. James was previously at West Essex Golf Club for nine years, and before that at Kingsthorpe Golf Club, Northants, his home town, where he started his career.

A golfer, Mr. James plays off a handicap of 14. He welcomes hearing from members at his home address, 49 Chatsworth Road, Parkstone, Poole, Dorset. Telephone: Parkstone 745059.

WE ARE sorry to report the death on November 10, 1974, of Mr. Sam T. Elliot, superintendent of the Royal Montreal Golf Club since 1960.

Before taking up this post he was at Ranfurly Castle. Members of the Scottish Golf Greenkeepers' Association will remember him particularly as their general secretary from 1957 to 1960.

LITTER LIFT Ltd. of Scethrog, Brecon, announce further sales of the 16 h.p. Model 1595 litter collector to two large golf courses where they are proving highly satisfactory for leaf collection.

THE Sports Ground Irrigation Co. of St. Mary's Road, Market Harborough, have announced their appointment as official installation contractors for Buckner pop-up sprinklers for the West Country, the Midlands and Cheshire.

CRITCHLEY BROS. LTD., manufacturers of Lamflex and PVC Pipaway plastics land drainage pipes, announce that these products are now approved to British Standard BS 4962 (1973), and have been issued with kitemark approval, licence No. 5838.

Plastics drainage pipes must now carry kitemark approval to be eligible for grant-aided field schemes.