

# Course renovation and maintenance using soil-based rootzones and topdressings

The use of soil-based rootzones and topdressings is a drum that BIGGA Education Supporter British Sugar TOPSOIL has been beating for many years and it seems the message is reaching an increasing number of professional greenkeepers.

They are following the science and including soil-based rootzones and topdressings in their course renovation and maintenance programmes.

## Sand versus soil

Looking at sand versus soil at a basic level, sand is inert, chemically inactive and incapable of holding on to nutrients or moisture because of its large particle size and positive charge. On the other hand, soil is a mixture of clay and silt and is negatively charged, which causes it to attract and retain positively charged nutrients such as potassium, phosphorus and magnesium, plus many micro-nutrients. The clay particles also hold on to moisture.

The cost of the inorganic fertilisers

required for sand-based dressings is constantly rising, putting pressure on greenkeepers' budgets. From an environmental or climate change perspective, using peat-based composts within high sand and compost dressings isn't ideal as peat is best left in the ground to continue its vital role in sequestering carbon.

Soil-based topdressings and rootzones, on the other hand, have a natural nutrient base and, in drought conditions, the soil content improves moisture retention. This in turn reduces turf stress and speeds up the growth of

new grass sown across repaired areas of high wear and footfall such as tees. Areas such as the collars around greens and the lips of bunkers can prove a challenge when trying to establish grass growth and retain form and structure. Soil-based rootzones are ideal for these areas, reducing extended down-time during renovation or repair and offering a cost-effective way of accelerating grass establishment.

To evidence the benefits of soil-based rootzones and topdressing materials, British Sugar TOPSOIL commissioned extensive scientific, replicated plot trials with the STRI in 2016/17 comparing the effects on turf of sand-only dressing with TOPSOIL's Sports&Turf soil-based topdressing. Further trials were carried out by the STRI in 2020, in pots this time, and both trials concluded that, when mixed with the correct sand and with the correct maintenance programme in place, sustainably-sourced, soil-based topdressings deliver a good supply of nutrients to sustain healthy turf, while also delivering the drainage rates needed.

## Find out more

British Sugar TOPSOIL carries out extensive in-depth testing and analysis of all its products and makes this information freely available from its website. Comprehensive technical sheets, independent trials reports, current testing and analysis data, soil health and fertility microbiology, and carbon audit monitoring results are all free to access and download from [www.bstopsoil.co.uk/topsoil-academy](http://www.bstopsoil.co.uk/topsoil-academy)

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Above: The existing course soil was de-compacted and levelled using a purpose-built rake before the placing of Landscape20 topsoil at a depth of 15-20cm

Below: Landscape20 used to form the lip of the green

Below: Bury St Edmunds' 13th tee, rebuilt using British Sugar TOPSOIL's Sports10

## Case study - Bury St Edmunds Golf Club

Located to the north west of the town, Bury St Edmunds Golf Club was established almost a century ago in 1924. It boasts an 18-hole championship course with year-round playability, re-designed in 1969 to accommodate the construction of the adjacent A14, and a 9-hole 'pay & play' facility, first opened in 1991.

Both courses benefit from on-going upgrading, and Course Manager Tom Smart and his greenkeeping team of seven have worked closely with respected golf industry expert and consultant Peter Jones over a number of years to change the features of the golf green complex to improve the strategy for golf and to make maintenance easier.

Most recently, in the late autumn of 2021, 120 tonnes of British Sugar TOPSOIL's Sports10 80:20 sand/soil blend was used to create a new tee for the 13th hole. During the same autumn renovation programme, 80 tonnes of TOPSOIL's Landscape20 65:35 sand/soil blend was used on the approach and collar of one of the greens. Before topping off with Landscape20 at a depth of 15-20cm the existing natural sandy loam soil was de-compacted and levelled using a purpose-built rake. Finally, a dwarf perennial rye grass turf was laid over the Landscape20. Throughout the entire operation the putting surface of the green was left intact.

