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Saving time with TURF

Seed or sod? DAVID WHITE speaks to leading turf growers who point out the pluses of staying with the sward

Wherever two or three greenkeepers are gathered together the topic of discussion will eventually come around to the age old saw of seed versus sod, which is best?

At the BTME I was able to ask several turf producers for their considered opinions. To begin, Stuart Mail of Lawn-Tech admitted to being a relatively new entrant into this industry and further confessed to having a fairly analytical standpoint which suggested that both seed and turf have an important and commercially viable place in golf applications. He began by saying, "The first thing I was told when I became involved in the turf business was that 'people who buy turf don't buy grass – they buy time!' Claims of seeded areas being playable in a few months, or even weeks, are often heard; but in reality seeding takes a minimum of *nine months* longer to reach an equivalent level of density, maturity, and durability compared with good quality cultivated turf." This was further endorsed by Stephen Fell of Lindum, who pointed to the pressures under which new courses are often placed by seeking to open for play as soon as possible – often even before the timing is right – when greens and tees are early pressure points. Turf in this situation would give the new owner a head start of at least six months over seeding, or even more depending on the time of year. Stephen was quick to point to the close liaison that turf growers enjoyed with seed producers, of the great advances made in breeding new varieties, and of using top STRI listed varieties and picking the best crop free lots of those varieties – clearly indicating that turf producers are good bed fellows with their seed breeding counterparts.

Turning to Rolawn's Rachel Semlyen, I learned of visits to Rolawn's production fields, where greenkeepers were able to see if what they produced was what was wanted. She told of listening and responding to their suggestions and how this resulted in mowing the greens turf shorter, of boxing 'All were firm in their conviction that turf was financially a better bet... a faster return on capital through memberships, fees and so on; reduced interest charges; and the reduction in potential loss of members'

> the clippings and scarifying and verticutting where necessary, and of mowing up to four times a week in order to satisfy their most exacting requirements. The result is claimed to save as much as a year of preparation for play, with greens being ready to play in as little as nine weeks from laying.

All were firm in their conviction that turf was financially a better bet, Stuart Mail summarising by reference to a faster return on capital through memberships, fees and so on; reduced interest charges on finance; and less tangibly, the reduction in potential loss of members or frequent users through inconvenience or delay. He made a further pointed reference to harassed greenkeepers by suggesting that valium was not tax deductible! On to production, Derek Edwards of the Inturf Group said that ten years ago some 90% of the turf market consisted of 'improved' pasture or meadow turf, much of which was grown on soil with a high silt or clay content and virtually unsuitable for any sporting purposes. The dramatic swing away from meadow turf, and to some extent that of seeding, being influenced by heavy investment in large scale purpose-grown production of turf on selected sites. These sites are situated mainly down the eastern side of the country (because of topography and generally lighter soils), but are aimed at supplying markets nationwide. Several thousand acres of production are used by the major suppliers, with smaller, more regionally based growers following suit and between them they have now all but seen off the old style



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'When looking for turf it is important to ask for a mechanical analysis of the soil that the turf is grown on... those turf growers with a concern for the needs of their customers will be able to supply one...'

meadow turf market, which really only satisfied low cost housing and landscaping and maintained the huge demand for seeding of specialist areas, including virtually all sporting applications.

Raising the question of soils, Derek Edwards was forthright in pointing to the potential problems that can arise by applying soil-grown cultivated turf onto prepared areas of a different soil type – a problem that, of course, does not exist when seeding. The most obvious is by transplanting a loamy or heavy soil based turf onto a sandy turf bed. However good the quality of grasses contained in that turf, drainage will be impeded and a weak interface caused which would result in poor sod adhesion (ie. a root break zone could exist) and subsequent loss of grass under heavy usage. This risk can be minimised by specifying soil type as well as grass type when ordering and he insists that by placing an order with one of the leading producers, they will not only understand your requirements but almost certainly guarantee a good result.

In counting costs, Rachel Semlyen made the valid point that multiple applications of herbicides are often necessary on seeded areas whereas turf should not require any for some years. Stuart Mail and Stephen Fell were both agreed that seeding can undoubtedly produce an equally good final result, but as Stuart pointed out, when buying turf the producer has taken the seeding and establishment risks of failed germination, erosion, pests, disease and weed invasion on your behalf. Both Rachel and Stephen agreed, "where greenkeepers for perfectly good reasons choose to seed it is in their best interests to study closely the top varieties currently trialled by the STRI and to realise that with amenity grass, as indeed with turf, you get what you pay for."

There was, inevitably, talk of laying applications, the point

being made that the big disadvantage of turfing was always the heavy, back-breaking laying of the sod. The advent of the 'Big Roll' turfing system, introduced into the UK by Lawn Technology and now seen in several different and modified forms, has laid this particular ghost, with Lawn Technology proudly claiming to have laid no less than three quarters of a million square metres with their clever system since its introduction in late 1990!

Unanimous in their enthusiasm for sod, producers echoed the sentiments of Tim Fell of Tillers Turf Co., who opined that when looking for turf it is important to ask for a mechanical analysis of the soil that the turf is grown on. Tim continued: "Those turf growers with a concern for the needs of their customers will be able to supply one. A high specification rootzone material will have less than 25% of particles smaller than 0.25 mm.

"In addition, the material will contain no less than 5% silt and less than 3% clay. The infiltration rate of compacted laboratory samples should be at least 150mm per hour. However, it is very rare that naturally recurring soils meet these specs and so one has to accept a compromise. As long as turf is grown on soils that have no more than 20% of particles smaller than 0.125mm and less than 10% of silt and clay, the chances of success are greatly increased. One fundamental rule is to buy turf that is grown on soil that resembles as closely as possible the rootzone material."

Finally, let Stuart Mail have the last word by suggesting that a visit to farms or obtaining samples will give the opportunity to choose from a wide range of turf to suit your application, in the sure knowledge that 'what you see is what you get'.

"If it is not," he says emphatically, "you can – and should – send it back!"

• The editor acknowledges the assistance freely given by Lawn Technology, Tillers Turf, The Inturf Group, Rolawn Turf Growers Ltd, and Lindum Seeded Turf in the preparation of this feature.



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When it comes to seed, always select the right variety for the task in hand. This is, however, easier said than done, reckons PAUL BILLINGS

he evaluation of amenity grass varieties is a complex issue as it embraces a wide range of features which may vary in importance with the assessor and the expected usage. For example, the wear resistance associated with some varieties may or may not be as important as the minimum cutting height or shoot density of another variety. So how does the greenkeeper select the varieties he requires and, just as importantly, how does he ensure what is being recommended is suitable for the application he has in mind? Clearly, the first thing a greenkeeper must decide are his exact requirements. Let us take some examples - golf greens, tees, fairways and roughs. Obviously, all are extremely important areas but each one has vastly different requirements and management regimes.

In the first instance let us consider greens. The fundamental requirement must be tolerance of close mowing followed closely by compactness or shoot density-Species such as chewings fescue and browntop bents demonstrate these characteristics extremely well. If, however, a variety is chosen which is not tolerant of close mowing then over a period of time it will begin to die back and allow *poa annua* infestation. Also, if the variety has not got a dense growth habit one will get a poor uneven finish and further increase the possibility of infestation by *poa annua*.

For **fairways** the requirements differ markedly than those for greens and, indeed, from course to course. The overriding question a buyer must ask is how many rounds per annum am I anticipating? If the answer is a very large number – for example over 60,000 – then wear resistance is obviously going to be very important and species of perennial ryegrass which show good wear resistance **•••**

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combined with excellent compactness and fineness of leaf ratings, will be very suitable. If however there are to be fewer rounds then other attributes such as compactness, slow growth and disease resistance will become more important.

Tees are a very important and specialist area of the course. Variety choice for tees depends on both the size of the tee, the number of rounds and the length of the hole. With a par 3 municipal or pay as you play course, one would naturally expect to see a large number of rounds in all weathers with a great number of inexperienced golfers. On this basis wear tolerance and recovery for divots is obviously going to be of prime importance. For the full length 'members-only' course, some wear tolerance will be required but other aspects may need to be taken into account such as fineness of leaf, slow growth, compactness and disease resistance. Species such as smooth stalked meadowgrass, along with creeping red fescue should be looked at.

Roughs have a rather unique

Will your grass seed stay the course?

set of requirements. Management time devoted to these areas is very limited, or even non existent, so the area must be sown with low maintenance varieties selected for their slow growth, a low final height and demanding minimal fertiliser inputs. Species which slot into this category include hard fescue and chewings fescue.

So, once you have defined your exact requirements the next step (and it is a major one!) is to make a firm decision regarding individual varieties. There are several sources of information available to the greenkeeper. These include amenity grass seed salesmen (who will have a certain degree of bias), independent testing stations such as the Sports Turf Research Institute (STRI) and trade organisations like the Amenity Grass Marketing Association (AGMA).

Also, do not overlook the sound advice that can be gleaned from specialist wholesale seed houses who can usually be found at the key UK exhibitions such as the BIGGA exhibition at Harrogate and the IOG at Peterborough. The more professional of these companies will not only have highly trained amenity specialists on their pay-roll but will also have the additional support of their own comprehensive trial and evaluation facilities.

At the end of the day your usual supplier will be able to guide you towards a mixture formulation that best suits your requirements. This may be from an own-brand range or, alternatively, your supplier may well be offering a mixture from one of the established ranges marketed by one of the specialists mentioned earlier.

A key point to note with any mixture is that you should be wary if you are offered cheap 'bargain basement' blends. The old adage that 'you get what you pay for' certainly applies to amenity grass seed. If you sow an inherently low grade mixture, containing inferior varieties, then no amount of follow-up management, however good, will help you to achieve top class results. The moral is quite clear – always select the right variety for the specific task in hand.

For information on individual varieties it is well worthwhile obtaining both the STRI's Turfgrass Seed booklet (available for a small charge from the STRI, Bingley, West Yorkshire, BD16 IAU) and AGMA's Merit List which is available free of charge either from your local AGMA member or write direct to The Amenity Grass Marketing Association, c/o The Secretary, 158 The Causeway, Wyberton, Boston PE21 7AR.

• The author, Paul Billings, is Product Manager – Amenity Grasses, Sharpes International Seeds Limited.





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Age of the Anglo-American hybrid

Golf course architect JONATHAN GAUNT continues his series with an examination of the so-called 'American style' and tells how its interpretation this side of the Atlantic resulted in a mismatch of styles... something of a monster

> Age, a transitional period in golf course design beginning in the late 1940s, when several untrained designers and aged golf professionals muddied the waters of classical design, often viewing a move into golf course architecture (sic) as a stepping stone to a new career.

> The design of their courses, increasingly built on stony ground with heavy clay soils, was very often basic, appearing as just 'tracks' which were normally long, dull and uninspiring. Monotony was the watchword, with few design features apart from lakes and impossible to maintain 'bunds' around greens. As for following an accepted specification for green construction - such as those recommended by Jim Arthur, the STRI or the USGA Green Section - little or no notice was taken. Construction often seemed to be nothing more than the simple excavation of a borrow area short of the green and pushing earth up to form a raised and featureless plateau (supposedly to aid drainage). Often the banks leading to the green would be too steep and difficult to maintain - or indeed to play the hole - and it would be virtually impossible to hold a ball on the green with a pitch shot. Drainage on the greens depended upon the budget and the designer, but it was often the case that an inferior sub-standard rootzone mix was used.

Although a move soon came towards creating more easily

maintainable course features, designers were increasingly influenced by what was then beginning to be seen throughout the world – either while the pro's were playing tournaments or what they had seen on television – in particular the so-called 'championship' courses and especially the 'American Style'. Unfortunately, by the time 'American Style' had reached our shores it had become diluted and Anglicised, a mismatch of styles and something of a monster.

These characteristics revealed a gross misunderstanding of the principles of good design and construction or of the game itself, especially in relation to the higher handicap player. It appeared to some to be almost a revolt against the classic design style of architects such as Colt and Mackenzie: of their tried and tested principles and of all that had been shown to work so successfully for 50 years. For some reason the new designers knew better – or thought they did. The Anglo-American hybrid style was like a new fashion which only the fickle and foolish would follow regardless. Fortunately there were architects like Hawtree and Morrison who knew that the classic style was best – and they stuck to it, while choosing only to take certain influences from Trent Jones and Wilson which they thought either complemented their own style or improved maintainability.

There appeared to be an obvious lack of understanding of the design principles of American architects such as Trent Jones Snr. and Dick Wilson (who competed ruthlessly for appointments in the 50s and 60s). These men really knew their trade. What was most noticeable about their work was their attention to detail and the incorporation of hazards in relation to the design strategy. Take, as a perfect example, the bunkering style of Colt, the green designs of Mackenzie and of the quality and standard of work undertaken by Trent Jones and Wilson.

Trent Jones Snr, a trained landscape architect, had been responsible for setting up his own education while at Cornell University, training in subjects directly related to a career in golf course design. Both Colt and Mackenzie had been good competitive golfers with a wealth of knowledge in the rules of the game and construction techniques. Wilson actually built many of the courses he designed.

It was probably because of Augusta National (originally designed by Alister Mackenzie with Bobby Jones in 1933), that Robert Trent Jones began to be widely known throughout the golfing world, for he was employed by the Augusta National Club in 1946 to make alterations to the course. His most notable change involved damming the lake on the 16th and altering the orientation of the tee, a concept which gained him recognition and acclaim for his confident, forthright and exciting design style. Two years later, Trent Jones collaborated with Bobby Jones at Peachtree, and here he designed a course which marked a turning point in golf course design – the course having tremendous flexibility because it could be played In numerous ways – largely due to large tees and greens with features such as mounding and hollows being incorporated instead of bunkers.

The major difference between the new British designers of the 50s and 60s was that many were coming into golf course design indirectly and were therefore not true professionals, accepted they had flair and exciting ideas, but putting them into practice was where the problems began. This happened in the US also, but often the professional golfers worked with practicing architects – Jack Nicklaus with Pete Dye, Desmond Muirhead, Jerry Pierman and Bob Cupp; Arnold Palmer with Francis Duane, Ed Seay and Xenophon P. Hassenplug (!); Gary Player with Ronald Kirby. By working with the career architects the professional golfers were prepared to appreciate that they had a lot to