

Seed and sustainability

With the imminent launch of Arrowtown bent at BTME 2013, a unique new cultivar from Johnsons Sports Seed, Noel MacKenzie of Sports Turf Consulting Limited has a closer look at bent grass use and asks if this grass has something to offer where sustainability is concerned







Everybody would agree that sustainability is a high priority in the management of golf courses, but is true sustainability actually achievable? For many people the simple answer is “No!” – however it is fair to say that the sustainability of golf course management has been significantly increased but we should perhaps accept that golf is only sustainable as long as it gets inputs.

As I understood it, the R&A and other bodies were promoting the minimal use of resources due to criticism from the press, environmental groups and the public.

I wholeheartedly agree with this approach, and I don't mind having another look at it too.

The focus is on installing fescue into golf greens.

Spurred on by observations in Denmark, where inputs are low and playing numbers generally lighter than UK courses, fescue was found to be performing well and some agronomists pushed this species as part of sustainable development.

It is a grass that does well in many parts of the UK, especially on coastal and colder areas where play and maintenance pressure is less intensive.

While it is fair to say fescue has

a role in sustainable agronomic management, it is worth asking the question whether this approach is the be all and end all of the improved sustainability process.

And what role, if any, can bent grasses play?

On courses in and around big conurbations, they are usually dominated by annual meadow grass due to certain factors such as:

- high wear and trampling levels,
- intensive management to combat those high wear levels,
- poor soil types which in winter work against deeper rooted grasses and favour Poa due to waterlogging,
- compacted soils requiring a lot of relief which opens up the surface to meadow grass germination
- low mowing heights below 4mm
- the combination of high fungicide/fertiliser/water inputs that allow Poa to survive when it might otherwise be affected by disease,
- and finally... a lack of co-ordinated seeding effort together with excessive fungicide use that protects Poa from Fusarium and Anthracnose attack.

In these environments the benefits of fescue can be greatly reduced – it simply does not survive the pressures on it.



But with bent grasses most agronomists and greenkeepers agree that these will get a foothold even when the management regime is not well suited to it.

Quite often it persists in a situation where the management, instead of helping this grass to thrive, is at best ambivalent about its presence and sometimes downright derogatory.

With the right approach bents can fulfil a very useful place and make up a useful proportion of the sward.

Five key issues need to be considered:

1. Ensure you have the backing of the club in pursuing the policy



TOP: Bowood Golf and Country Club, Wiltshire

and be clear why you think this is a good idea.

2. To have any chance of success it's important to ensure the management regime of greens is going to work with your bent grass - if you cut at 2mm expect failure.

Realistically bench set mowing heights need to be about 4mm minimum for success with Colonial bent; Creeping bents may be happier at 2.5-3mm.

Verticutting and scarification requirements may be different both in terms of frequency and aggression - Velvet bent will need plenty as will Creeping bent; Colonial bent will simply need a tickle about every 10-14 days in the growing season).

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3. Not all bents are the same – they will respond to different conditions through the year.

Different species have different requirements for feed.

For example, Creeping bents need plenty, Colonial about half and Velvet about half as much as Colonial, and some are more water dependant than others.

Creeping bent really doesn't like the winter or being allowed to get too long or too hungry, whilst Colonial and Velvet do well all year round but their feed and verticutting requirements were quite different.

4. How you make introductions with seed is as important - get it wrong and there'll be trouble ahead, and don't rely on a single seeding action.

Make sure you determine the right time in the year to seed - the bent seed has limited reserves and can't be too wet, cold or buried if it's to have chance of survival.

Late spring, summer and a very early autumn are best in my opinion.

There are plenty of ways to overseed but the crucial part is to get the seed to soil contact and this requires sarel spiking and/or scarification at the very least.

Some greenkeepers have had good results with overseeding with deep scarifying when the surface is really opened up.

Some of those greenkeepers have also seen that grass disappear

later under a tide of Poa due to failures of the rest of the maintenance programme.

5. Select the right species and cultivars.

You might think it's a bit odd to leave this until last, but I really wanted to make the point that the other issues are essential in getting to this point not vice-versa.

Choosing the right species is the first step in relation to your other maintenance parameters, then you need to look closer at the cultivars.

This may or may not mean choosing from the top listed varieties – a suitably qualified agronomist can help you in this area.

Also look at company trial sites to see what's new - the BSPB Turfgrass Seed Book is a useful source of information.

Sustainability means using less chemicals, and seeking to ensure the course can run effectively under its own steam.

Whilst fescue has its well deserved place in maritime and colder climates in the UK and Ireland (and during winter or dry conditions) bent grasses offer a very good, and in many circumstances, better route, towards sustainable playing surfaces.

Bents require a considered and careful approach, looking at each of the management factors listed previously to get the best from them.

Remember there is no point in seeding into acidic, wet thatch

accumulation so it is essential to get the scene set before undertaking seeding.

If you're tempted to start a bent grass renovation program then DLF Trifolium's Derek Smith says "the new Arrowtown bent is worth a consideration.

It fits into the existing Johnsons Sports Seed line up of bent grasses which include Manor, Villa 1 and Cobra Nova, the latter being the highest rated creeping bent grass for UK conditions".

Greenkeepers can take a first look at the official independent trial results with the publication of the 2013 Turfgrass seed booklet, but it's believed that in the first year seed availability is likely to be limited.

Derek adds: "Arrowtown is bred from exceptionally fine and dense plants collected from greens at Arrowtown Golf Club and in trials, it really stood out being noticeably much denser than the cultivars currently available, like Manor, Barking and Aberroyal.

Arrowtown is an exceptionally fine and dense browntop, ideally suited to closely mown (4mm) greens, tees and fairways.

On greens the tight, dense surface sets new standards for quality & disease tolerance.

It has a natural vigour to recover quickly from renovation and an improved drought stress to retain its green colour for longer in summer."

