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The Alchemist

When it comes to getting better cultivars into your sward, don't be bamboozled by what's on offer. David Greenshields, lifts the lid on the art of grass seed breeding and blending

A common question I'm asked by greenkeepers and turf professionals is if and/or when they should change the grass seed mixture they're using.

The advice from leading independent advisors is, quite rightly, to consider changing what you're using from time to time in order to add to the diversity of your sward to improve overall performance.

And it is also understandable that many turf professionals are bamboozled when told they should change a grass seed mixture that has performed well over the years. But it's important to understand that you can still follow this sound advice without necessarily needing to 'change' your mixture. So how does this work?

'Change' can take place over time in the form of the individual cultivars that make up your preferred grass seed mixture, rather than moving away from the mixture or brand itself. For example, we regu-

larly test new cultivars in mixture synergy trials prior to introducing the re-formulated mixture into the market, thus ensuring users can enjoy improved performance year-on-year by selecting what can be perceived as the 'same' mixture.

So let's take a closer look at this issue...

Breeding breakthroughs

Let's start with the role of the breeder. Grass seed breeders work to improve and update cultivars on an ongoing basis, providing turf professionals with characteristics like disease and drought tolerance, cool-temperature germination and rapid recovery from wear. You name a problem, you can be sure there's a breeder out there pioneering a new cultivar to solve it!

That's why it's vital that these breeding breakthroughs are introduced into our playing surfaces – they contribute not insignificantly to providing the protection we so

need from disease incidence or adverse climatic conditions. Without them, a surface left unseeded for a prolonged period, or reseeded with an unchanged mixture, will become increasingly susceptible to stress.

Once one of our global network of plant breeders has produced a cultivar that, say, provides improved tolerance to Leaf Spot disease, it's then up to us to make the most of that breakthrough.

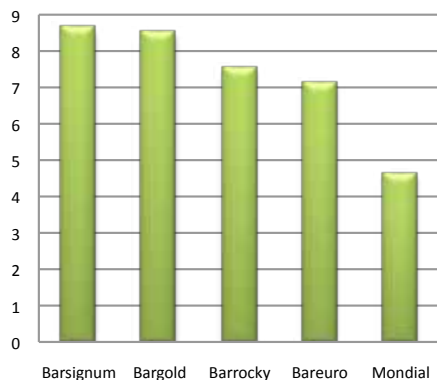
How individual cultivars are selected, trialled and harnessed within a mixture aside for a moment, this brings us to the key point of difference between breeding companies and grass seed importers.

Only a breeding company that understands the value of applied research and development – i.e. a grass seed company investing and involved in the process of developing new cultivars through a comprehensive trialling programme





The improvements in Fineness of Leaf:
Barenbrug cultivars in BAR Extreme versus
bottom of Table L1 Turfgrass Seed 2011



– can provide you with the latest solutions and all the benefits these bring. We are constantly looking at how we can better our mixtures with the latest Barenbrug-bred cultivars – to do so takes time and money, hence we are a premium-priced product with added value in terms of performance capability.

Compare this approach with those who buy-in grass seed from various sources either ready-blended or blend it themselves without the benefit of a breeding, and research and development programme – without expertise or passion.

This means products from breeding companies will include the latest cultivars as a matter of course. So, perhaps you've been using the same mixture – let's say our BAR Fescue – for several years. But, as we'll see, it's changed and evolved over time. If you're buying seed from a breeding company, you are replenishing your sward and improving disease tolerance without necessarily knowing it!

Mixture synergy

Let's say, at the other end of the scale, you do know your cultivars from your mixtures, breeding companies and marketing blarf. A little knowledge can be a dangerous thing, as they say!

Lots of turf professionals, understandably, look at individual cultivar characteristics – perhaps consulting the British Society of Plant Breeders (BSPB) Turfgrass Seed guide – to solve problems. It makes sense – you want a bent grass mixture for your greens, so you naturally gravitate towards the top-performing cultivar on that particular table and give the 'agent' company a call.

This may sound surprising coming from a company whose cultivars regularly top the tables. but, finding the perfect grass seed blend is a kind of alchemy.

That's where mixture synergy comes into its own.

By carefully selecting desirable characteristics, and considering how different strengths and traits might complement or compete with each other, we research and develop the mixtures that eventually make it to market. This is a long process – it can take a full 15 years to develop a new cultivar, through breeding, in-house research, in-field trials with turf professionals and official testing systems; each a vital and valuable part of the process.

Along the way, we might discover a cultivar that scored well in the Turfgrass Seed guide for fineness

of leaf improves a mixture dramatically – and gives, let's say, added cool temperature growth or extra disease resistance to boot. It's fascinating.

Buy right

We all need to remember that you can't look at key characteristics of cultivars in isolation to find the optimum solution to a particular problem, be it recurring disease or a salt-ravaged links course. Nor can the constant chopping and changing of products, or – more worryingly – brands, magically replenish and revive your playing surface.

So what can you do? Well, you can educate yourself about the differences we've discussed here and make informed buying decisions. Ask questions. What new cultivars does your chosen grass seed mixture contain? When was it last refreshed? How often has it been reformulated in the last five or 10 years? When you take into account the wider relationship-building and problem-solving role of grass seed breeding companies, it's unfortunate to see venues make poor product choices.

Let's take a look at a couple of examples of mixtures we've evolved to show just how much products can change over the space of a few years...

- BAR Fescue has changed significantly in the last five years. We've most recently seen the introduction of innovative new cultivars like Viktorika (25%), Barswing (20%) and Bargreen II (15%), together with 25% Barcrown and 15% Barbirdie, to create the mixture's current composition. Compare this to its 2006 formulation of 50% Bargreen, 25% Barcrown and 25% Barpearl. These latest additions bring improved desirable characteristics – combined disease tolerance and cool soil temperature germination – that are an improvement on the previous incarnation.

- BAR 7 is currently undergoing something of a revolution. Having developed a unique Regenerating Perennial Ryegrass (RPR), we soon saw how its creeping growth habit, with a capability to establish quickly and tolerate wear, could particularly benefit football and rugby applications. After successful trials at a number of top football venues during 2011, BAR 7 RPR has now been launched as an added option to the standard mix. And with production of our new top-rated variety Barorlando in the pipeline, this popular blend is likely to take another step forward very soon!