

GREENS & GRASS



PART 1 – TWO SIDES OF THE COIN

The debate on grass type across our greens has been a hotly debated topic for years. Should we accept the prolific nature of POA like so many other courses that have successfully propagated the varietal as their species of choice, or fight the honest fight to maintain our currently adopted creeping bent?

So, the question, *Agrostis stolonifera* sp. (current main species - creeping bentgrass); or and *Poa annua* L. (annual meadow grass/annual bluegrass (USA)/or poa), what's best in the short to long term?

When you get into it ... you find the chatter from course maintenance communities around the world remains abuzz on the topic. Like Remuera there is typically two camps. Those that focus on keeping Poa alive and flourishing, pushing out the bent grass, while others are strongly in favour of bent grass and look to eliminate/manage the Poa. Much of the decision is dictated by the microenvironments of the golf courses. Both have potential, so perhaps we should just flip a coin?

HEADS

Poa has been around for a long time – originally a European native that now resides in many courses around the globe and is prolific in the America's and Southern Hemisphere. Poa includes many famous courses such as Pebble Beach, Oakmont to name a few and more local NZ courses such as Omaha Beach and Pakaranga etc, etc.

Poa advocates will often claim why all the fuss, it's a winless battle, "Poa is more competitive and will take over anyway" just take the US for example. "Poa greens must provide the best playing surfaces, just look at the number of U.S. Opens played on them**".

There's no question that Poa can provide a great putting surface, but the real question to ask with a golf course, is at what cost? The biggest thing with Poa is it's always going to arrive and typically thrive in areas where you can't grow anything else. However, Poa is a needy plant with a low threshold for weather extremes. It's vulnerable during droughty, high temperature conditions as well as cold. It's stubborn short roots lead to a greater need for water and increased 'spoon feeding' of fertilizers and pesticides to really thrive.

TAILS

On the other side of the coin are the Bentgrass promoters, who claim their grass is stronger. "Bent survives weather extremes where Poa dies".

As far as competitive, does a plant that has to rely on a seedbank (hence its prolific nature to spread) to continue its dominance really make it more competitive? Or does the stronger all-round plant automatically mean its more competitive? Or put into a kiwi sense, on the All Blacks rugby team for example would you rather have a bunch of weaker, lesser players with a multitude of backups that need constant support or team made up of fewer stronger players that multiply and strengthen as they game goes on? Their point being, that Bentgrass is less needy than Poa, requiring less 'spoon feeding' and inputs and typically gets stronger.

The modern bent grass advocates would argue, learning how to manage bent grass now will put you ahead of the curve down the road. Regarding the U.S. Open comment as a symbol for Poa effectiveness** they would go on to say, there are fewer golf courses out there that are actually managing for bent and that the majority of Opens are played on old traditional courses that have simply been maintaining Poa for ages, it's a simple numbers game in a changing world.

Also, in this day and age, conservation is becoming a fact of life. This places tighter restrictions on water use, fertilizers and pesticides and couple this with growing plant pesticide resistance to, the bent advocates would argue further that such factors would limit Remuera's ability to manage Poa effectively?

So, we are really no further ahead with both species having potential. With so many expert (and some less so) opinions based on experiences with other club greens across the globe and perceived results, finding content on this topic is the easy part, the trick is making sense of it and hence the right decisions for all the right reasons. What we do know for sure given the prolific nature of POA as a species, is that we are not alone in this debate.

The question therefore remains, what is the best option for our club, our microenvironment and importantly our members. One thing is for certain, once POA is established, management is possible, however eradication is unlikely as it (the species) volunteers year after year, increasing in abundance before Winter and early Spring.

Recently, the RGC technical committee engaged the services of Sports Surface Design & Management (SSDM) through the services of Will Bowden Manager Agronomy & Research - Principle contact for Golf Course, Ecological Services & Turf Clinic.

Will has over 14 years of academic and practical experience of greenkeeping in NZ, the US and UK. More recently he was employed as a programme manager and lecturer in sports turf in the UK. He specialises in pest and disease analysis. His experience in applied habitat management, golf course biodiversity and habitat restoration of golf courses means he can advise on any related environmental issues regarding natural landscape management. Will is a member of the New Zealand Ecological Society and on the Executive board of STANZ.



Sports Surface Design & Management
SPECIALIST TURF CONSULTANCY SERVICES

Extensive review of the three grass options specifically for RGC, creeping bent, browntop bent and POA was undertaken across a range of core attributes specific to RGC:

Usage (rounds per annum, RGC very high) ability for the species to be sustainable under heaving traffic load

% of shade (intrinsic to the RGC character) - impact on performance

GEO & demand for consistency ('environmentally sustainable practices' - given RGC leads the way being recognised globally as GEO Cert club, something to be proud of where pesticide resistance is a global issue) and relationship to ball speed, roll and surface trueness

Mowing heights and speed generation (year-round performance and member expectations) low cutting heights (an RGC standard) to present 'premier' putting surfaces for as much of the year as possible

Consistency of optimal play and aesthetics across the entire course consistency (the crux for members)

Disturbance with on-going construction and reconstruction of new greens on the golf course means that achieving total consistency across all the putting surfaces will continue to be extremely challenging goal - regardless of turfgrass species selection.

MYTH#2 POA is the best Grass because its used in more US Opens?

Recent performance attribute scores for Remuera Golf Club...

71% CREEPING BENTGRASS
43% BROWNTOP BENTGRASS
43% POA ANNUA

Fewer golf courses out there that are actually managed for bent and that the majority of Opens are played on old traditional courses that have simply been maintaining Poa for ages, it's simply a numbers game in a changing world.

Each grass type was scored on performance for pros & cons across the attributes & given a mean average.

Performance scores across all attributes were 71%, 43% and 43% for creeping bent, browntop bent and POA respectively.

In summary, the findings (core data), strongly suggests *Agrostis stolonifera* sp. (creeping bent) as being the most appropriate turfgrass species selection for many golf greens in Auckland and RGC specifically with an average performance % score of 71%, whilst *Agrostis capillaris* sp. and *Poa annua* L. both scored an average performance % of 43%.

The key conclusions being:

Simply put, the volume of rounds, tree lined shades character, desire for consistency of green performance (speed and trueness) balanced by intensity of management (mowing heights, resource consumption and use of chemicals, year round aesthetically pleasing, desire for reduced disruption and lastly pesticide use reduction GEO environmental sustainability, means creeping bent the current predominant species far outweighs other considered options including POA.

1. Usage - RGC exceed 40,000 rounds per annum (2018 approx. 60,000). *Poa annua* and browntop bent grass have been proven to thrive on courses that might receive 40-50% of this annual usage.

2. Shade - The tree lined nature of Remuera is valued by the club and its members as an intrinsic component of the sites character and competitive playability. The resultant shade issues on numerous greens are not conducive to a high density *Poa annua* or browntop bent sward.

3. Demand for consistency - *Poa annua* can provide consistent playing surfaces when managed intensively and under management systems that would nowadays be considered as 'environmentally unsustainable'. Browntop bent prefers not to be mown at a height of cut that would be considered appropriate for a course such as Remuera in order to achieve desired green speed and consistent surface trueness.

4. Mowing heights and speed generation - Browntop bent will not tolerate the low mowing heights and relatively intensive cultural regimes required at Remuera in order to present 'premier' putting surfaces for as much of the year as possible.

5. Consistency - Creeping bent varieties will provide the optimal option in terms of providing the potential for greens to play and look aesthetically appealing and consistent across the entire course compare with other option on average.

6. Disturbance - The on-going construction and reconstruction of new greens on the golf course means that achieving total consistency across all the putting surfaces will continue to be extremely challenging goal - regardless of turfgrass species selection.

7. GEO - Remuera has underlined its commitment to operate within a high level of environmental sustainability. The course has been the first New Zealand course to successfully gain certification under the GEO Cert programme. Under this programme it is anticipated that all agronomy decisions pertaining to the course are made in lieu of optimising factors such as; resource consumption, pesticide reduction (in an environment with increased chemical resistance) and long-term operational sustainability. With this in mind the most appropriate turfgrass species selection for the greens at Remuera is *Agrostis* sp.

So, it would seem to be tails for RGC - more to come on this grass type in PART2.