

# TURFTALK

BY LAWN SOLUTIONS AUSTRALIA | JULY 2022



**Do New Breeds Mean  
Better Grasses?**

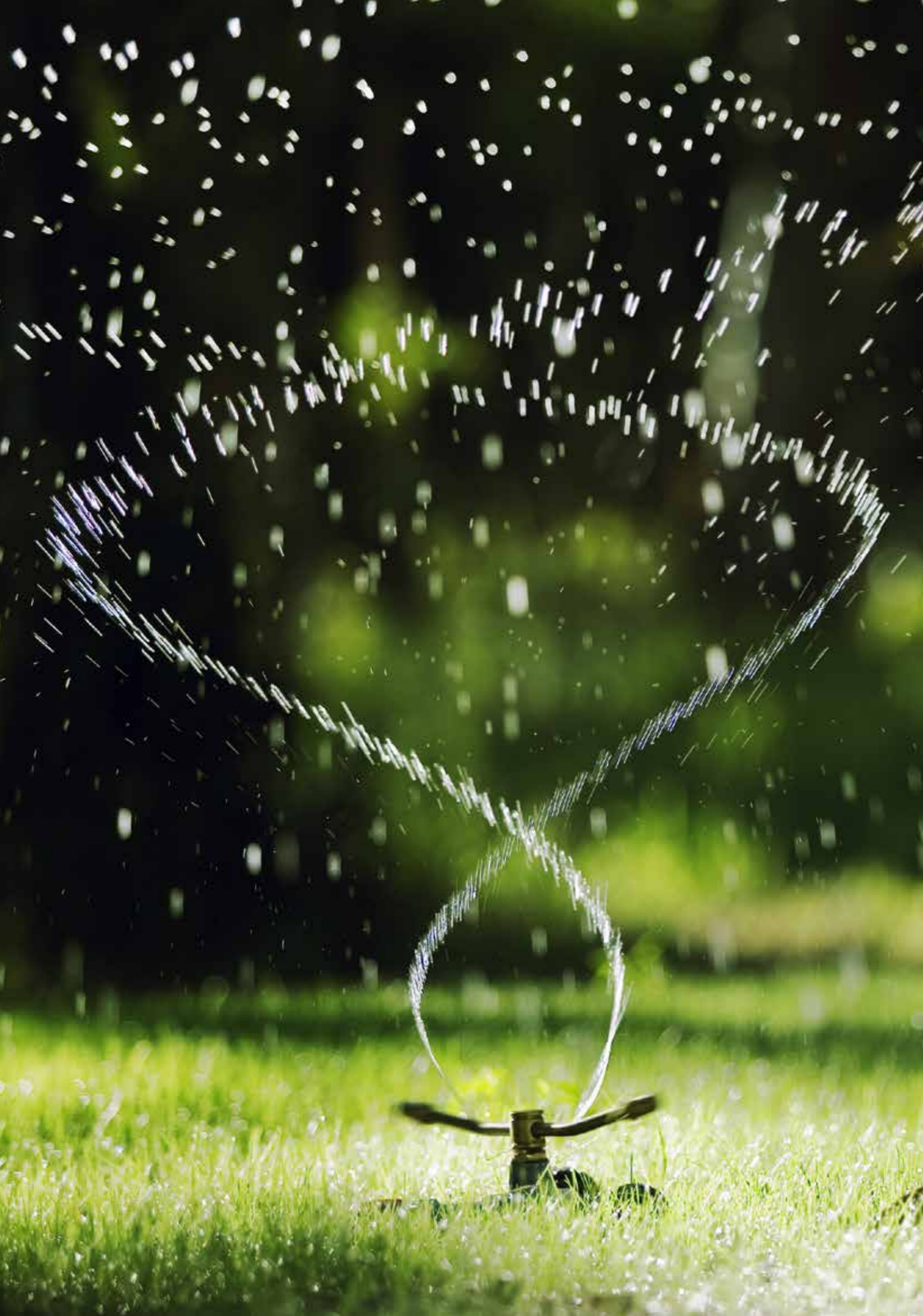
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Charlie Albone at MIFGS 2022

# Welcome to TurfTalk,

Australia's most comprehensive turf magazine. TurfTalk is suitable for all turf professionals, from turf growers to landscapers, golf courses and sports ground curators, to government and related industry organisations.

TurfTalk is here to share with you the latest information on the turf industry, the exciting developments in turf research and to keep you up to date with everything you need to know about turf.

TurfTalk is a free magazine, distributed to over 3000 landscape and turf professionals.

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# Bring in the Reinforcements!

## HYBRID GRASS AND TURF REINFORCEMENT RESEARCH STUDY BY CARLOS SARTORETTO AND DR. CHRISTIAN SPRING OF STRI

There has been a lot of buzz and excitement lately about hybrid turf reinforcements for sports fields in the turf world. Australia has developed a growing interest also with the FIFA Women's World Cup coming to Australia and New Zealand in 2023. However, the use of hybrid turf reinforcements has been around for more than 30 years.

STRI has worked alongside multiple sports associations to develop and test these systems under different conditions and scenarios. Proper field trials with randomised block design, with multiple repetitions and different stress factors,

grasses and products are being conducted at STRI facilities across the globe.

In this article, we will go through the basics of turf reinforcements. This is based on trial experience blended with venue testing data.

### Concept

Turf reinforcement is anything that can be used to provide further stability to the playing or sports turf surface.

For drainage purposes, professional sports fields rootzones are made from very high sandy materials (typically a minimum 80% sand). Sand is very unstable on its own. Sand is inert, lacks in turf nutrition and drains very fast.

Amendments in small quantities (not usually higher than 20% by volume, including compost) are added to ameliorate, improve and enrich the rootzone media. Selection of the best amendements and combination of amendements is a business of its own. There is considerable research conducted in the development of both organic and inorganic amendements. The aim being to develop and to optimise materials that blend well with sand, to provide the necessary support to the growth of grass, whilst also withstanding the rigors of the local climate and play.

To provide further support to the sports surface, reinforcement systems were

developed. These turf reinforcements are usually synthetic (but not necessarily) fibres that can be placed into the rootzone in many ways to provide stability to the sports surface. It is called hybrid turf because these solutions provide the strength of the engineered synthetic fibres, whilst allowing a natural grass surface to be created. In other words, taking the best characteristics from both fully artificial turf and natural grass surfaces.

Turf reinforcement was first introduced in Europe in the 1990's, where most professional sports fields are made of Ryegrass. Perennial Ryegrass is a very strong grass with excellent establishment and wear tolerance characteristics provided there is

enough sun. As stadia got bigger and taller to further enhance spectator experience (including the development of closing roofs), with seating closer to the pitch creating an amphitheater like atmosphere, a recipe for turf disaster was created. Grass is a green plant and therefore needs light to survive. In these new stadia the amount of light available to turf was dramatically reduced, especially in winter. Turf without enough light becomes easily stressed and typically becomes thinner and longer with less tillering. This makes it less attractive but importantly less able to support high levels of usage. Technology has been developed to help solve these issues, such as the use

of grow lights, turf reinforcements and vacuum ventilation systems which are now commonly found in most modern stadia.

In the past, stadia were built outside the city perimeter. With population growth and the expansion of cities, most stadia now tend to sit on very expensive real estate.

These factors put pressure on the turf surface to increase the number of fixtures and to look at a wider variety of usage modes. This has led to the development of multi-purpose arenas. What once used to be only a soccer field now needs to give space to horse jumping events, monster trucks,

motocross, music concerts, rugby, tennis, the list goes on.

We generally categorise hybrid sports turf reinforcements in three different ways:

#### Rootzone amendments

These are a mix of polypropylene fibre and sand. Common brands in the Australian market are Lock sand or Stalok Fibre.

When the turf grows, roots interlock with the fibres providing greater shear strength and wear resistance on the turf surface.

It is a simple but highly effective concept of using synthetic fibres to stabilise a silica sand in order to produce a free draining yet relatively firm sure footing surface. Fibre amended sands can easily have the fibre rate adjusted to meet the requirements of different sports and fibre content can be topped up as part of normal renovation operations.

Fibres mixed in the rootzone have also been used as part of equestrian surfaces where the rot proof polypropylene fibres stabilise the silica sand by providing a high degree of resistance to sand particle movement when the surface is subjected to compressive and/or shear forces from the horses' hooves.

Rootzone fibre reinforced pitches can boost the stability of pitches and equestrian surfaces. They don't tend to interfere with typical turf maintenance practices. From experience, keeping on top of organic matter and thatch build up is critical. These systems rely on some grass cover and importantly root material being present. It is important to prevent fibres from becoming buried under topdressing and to get the best performance the sand should be at optimum moisture content and not too dry.

#### Carpet systems

Artificial grass fibres are woven into a backing. Backings can be partially biodegradable. The carpet is laid usually between 4 to 6 centimetres below the final surface level and is infilled with rootzone mix. Seeds or sprigs are then planted above. Plants stolons, rhizomes and tillers envelop the artificial fibres, while roots will grow through the backing anchoring the carpet. They then grow into the sub-base to access moisture and nutrients. Examples of



Stalok in an Arabian horse racing track

brands that represent these types of systems in Australia are Playmaster, Xtragrass, Mixto and Hero Hybrid Grass.

One of the greatest advantages of hybrid systems is the ability to returf the pitch at the end of the season or if worn after an event. With the system providing lay-and-play solutions for different sporting events.

On the other hand, most hybrid carpet systems are not made to be reused (although some are designed to have longer lifespans in long-term installations). Renovations will cause loss in fibres that ultimately will render the product ineffective. Especially with warm season grasses that can build up a lot of thatch. Most short-term carpet systems are made to last on average up to one to two years. Renovations for



thatch removal must be conducted with precision to avoid ripping the backing.

#### Stitched systems

Common brands are GrassMaster, SISgrass, GrassMax and Sporthybrid R. A stitching machine sows or injects long synthetic grass fibres from 10 to 20 cm into the rootzone. The plastic fibres sit within

the grass canopy and along with natural grass plants, provide anchoring for studs to give optimum surface traction.

With a life span of 10 years or more the product can withstand multiple yearly renovations. It can be installed on your current pitch without needing to strip the surface. Small returf with "turf-doctor" can

be easily made. Localised spots can be stitched, such as high traffic areas (penalty spots and goal mouths). Different depths, heights and fibre densities can be set by the installer. It improves drainage by creating a direct channel of the surface to the sub-base.

On the other hand, it is permanent which means you can't returf the pitch without



losing the benefit of the hybrid. You can nearly say goodbye to sand top dressing and certainly not without a renovation. Yearly renovations will be required as thatch build up will render the product ineffective.

Even though some sports associations tend to prefer specific types, all turf reinforcements aim to provide the same benefit, a stronger playing surface that is more resistant to wear. The goal is not to increase traction for the players, as sports injuries may occur. The goal is to maintain traction even when all of the turf is worn away. Also, a significant benefit is having a playing surface that is less susceptible to divotting. The net result is to increase usage hours on a natural turf surface, whilst providing a more consistent surface with high quality play throughout the season.

Our goal as sports turf experts is to share this responsibility with the pitch management

team so that the right decisions are made at the right time, so you and your pitch 'look good' when the challenge comes. Turf reinforcements increase pitch usage, and this has been proven repeatedly by the science.

One of the big questions has always been around why these turf reinforcement products have been developed in cool season areas. In warmer climates where Bermuda (couch) Grasses, Zoysias, and Paspalums are used, these species are much stronger than their cool season counterparts, like Perennial Ryegrass, Kentucky Blue Grass, and Rhizomatous Tall Fescue.

With our warm season grasses, are turf reinforcements still needed? The answer is not that simple. It depends on the amount of field usage, your budget, what type of grass you have, the amount of shade, when the playing season is and the playing level of users. Ultimately it can come down to which

product is the best fit for your maintenance equipment. However, I have never met a turf manager not interested in using all the latest technology available to enhance their surfaces and continually striving for perfection.

Likewise, football players and coaches, once they play on a hybrid field they will want to practice on the same conditions they encounter on game day. Which means more turf reinforcement surfaces on training sites as well. Often it is training fields that take the brunt of the wear, with day in, day out play. It is often these pitches that would benefit most from hybrid reinforcements.

Which one should I choose? Well that my friend is a topic for another day, so stay tuned in!



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# Do New Breeds Mean Better Grasses?

## COUCH GRASSES UNDER THE MICROSCOPE

One could be forgiven for getting excited about the release of any new turfgrass. It's in our DNA as turf lovers and industry experts who are always looking to play with the new shiny toys and newly developed turf products that are rolled out (pun intended) and released to market.

Like all products that are designed to turn a profit, the hype and marketing can often overlook the discernible traits that render a new product worthy of such praise and anticipation.

Fortunately, as turf experts, we understand that the true test of a new turf varieties mettle is in the data. Extensive, independent, and Australian based turfgrass testing and trials, this is where we find our diamonds. Without these trials and this conclusive data, all we are left with is hot air.

New breeds of grasses like TifTuf Hybrid Bermuda, have given rise to a wave of aspiring grasses wanting to be just like TifTuf. It's a remarkable grass, with a level of hype that has been rarely seen in the Australian turf industry, except for the likes of Sir Walter

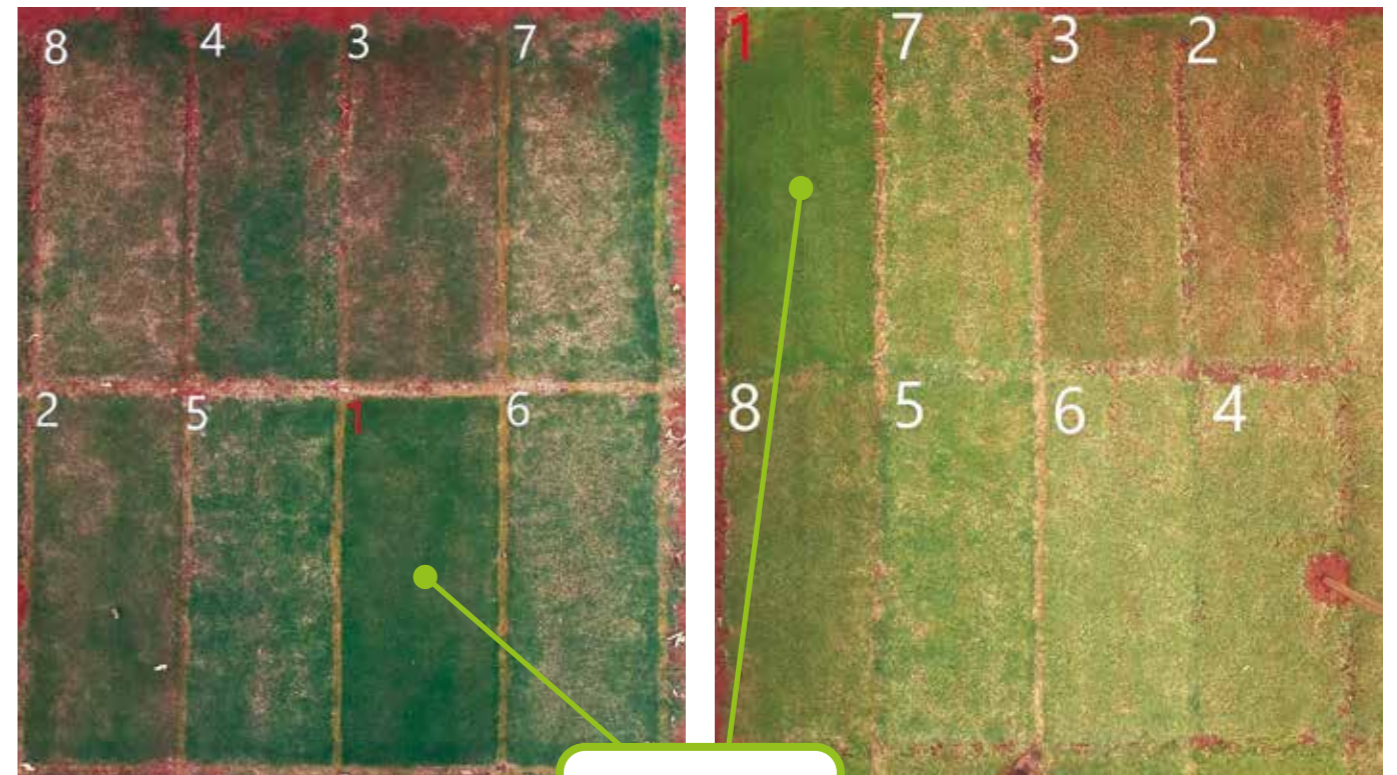
DNA Certified. What TifTuf Hybrid Bermuda has that those other grasses do not, is data and lots of it.

While US data can provide an excellent guide and help turf researchers decide which grasses to import and trial, it's not until there is Australian data from trials conducted in all parts of the country that claims of performance can be substantiated.

STRI (The Sports Turf Research Institute) conducts world leading testing and research, developing innovative techniques to assess and improve turfgrass surfaces.

STRI conducted the most recent Australian based independent trial evaluating the 'Performance of bermuda (couch) grass cultivars under different shade, irrigation, and wear treatments.' These trials included all the commonly grown couch grass varieties available across Australia.

TifTuf Hybrid Bermuda was a clear stand out performer in this trial outperforming all other couch grasses in every one of the treatments assessed.



Turf quality of different cultivars averaged over the effects of shade, irrigation, and wear



Drought stress of different cultivars averaged over the effects of shade, irrigation, and wear

TifTuf had superior turf cover (thickness and growth) over the duration of the trial compared to all other grasses trialled. TifTuf also scored the highest NDVI (normalised difference vegetation index) which is a measure of appearance using a specialised scanning device.

This was not a surprise to those who have been studying this grass for the best part of three decades. TifTuf has been trialled in the NTEP (National Turf Evaluation Program) in the US, where TifTuf was in the top 25% performing couch grasses for overall quality 84.6% of the time.

Another newly introduced couch grass that has been recently receiving some attention in Australia managed to reach just short of 70%, that grass was Tahoma 31. Tahoma 31 has experienced limited expansion since it was introduced to the North American market, even though it was released around the same time as TifTuf. TifTuf has over 6,000 hectares currently in production across the US, with Tahoma 31 much less.

TifTuf has shown the same growth in Australia, where it has been awarded the Smart Approved WaterMark for water efficiency. The only grass, or plant for that matter to receive the approval. To receive this approval data is required, trials need to be conducted and ultimately it's the tangible results that dictates whether a product is successful. Marketing and hype cannot manifest such an accolade.



\*Excluding Western Australia and Northern Territory

A study into water absorption of turfgrasses was conducted at the University of Oklahoma in 2019. This study found that when unlimited water was provided TifTuf absorbed more water than any of the other grasses in the trial. While this sounds like a negative, these results served to substantiate that TifTuf is indeed different when it comes to its relationship with water. When water is available, it absorbs and utilises the resource available. When water is minimal or during deprivation, TifTuf has the

capacity to withstand the strain before stress sets in, because when the water does come, it's ready to make the best use of it.

An analogy used by leading turf breeding experts is this: TifTuf is the top dog, give it water and it will lap it up like crazy, but it will be able to run for days. While the other dog laps up the water with less exuberance, once released into the paddock, it's the first one to falter.

There is currently over 250 hectares of TifTuf currently in production in Australia with production doubling year on year. All TifTuf is certified by AusGAP, the Australian Turf Certification Program, to maintain purity and integrity. There are no other new or existing hybrid couch grass varieties protected with this certification. With the superior traits of these new varieties being paramount, maintaining genetic purity is of the utmost importance. When you choose TifTuf, you can be assured you are receiving the genetically pure turf variety that possesses the superior traits that resulted in its selection above all others.



# Bent on TifTuf Greens

## WEST WYALONG SERVICES AND CITIZENS SPORTS CLUB COMPLETED BY RIVTURF

West Wyalong Services and Citizens' Sports Club includes an 18-hole grass greens course. The 100 plus year-old course is just a few minutes' drive from West Wyalong in NSW, just off the Newell Highway.

It is a fully licensed Sports Club with bowling greens, tennis courts and a swimming pool that complement the pleasant par 72 golf course.

This phase of course reconstruction saw 18 new greens and tees as well as the practice green installed by turf supplier Rivturf using TifTuf Hybrid Bermuda in two stages. Since installation the greens and tees have been maintained by the clubs greenkeeping staff.

### Turf Variety Selection

As a mature club all the greens were originally installed as Bent grass and the tees were a couch variety.

Following damage to some of the greens and tees, the small western New South Wales golf club was looking for an upgrade which would be easy to maintain and considered the region's lack of water to

irrigate thanks to Australia's recent drought. The new grass also needed to incur lower costs for fertilisers and chemicals that had been required to keep the Bent grass at required playability.

The staff at Rivturf were contacted and they introduced the managers and greenkeeping staff to TifTuf Hybrid Bermuda, which having recently received certification as the first and only turfgrass to ever receive the Smart Approved WaterMark in Australia and across the world - was a perfect fit.

The plan was split into 3 construction stages to minimise the interruption to play on the course. The greens on the 10th through to the 18th were completed first and then 12 months later the front nine greens and all tees were completed.

Rivturf's father and son team of Andrew and Cameron Longmore from Rivturf Pty Ltd project managed the supply of turf. Rivturf is a turf grower and turf installation specialist based in North Wagga Wagga.

Jamie McIntyre from Outdoor Inspirations Irrigation and Landscaping assisted with

the preparation of the first stage of greens and the laying of TifTuf. Josh Cunningham and his crew at All Outside Landscaping & Land Management attended to the second and third stages of replacing the remaining greens and tees and have attended to the maintenance of the course since then.

### Preparation

Each green was slightly different, depending on certain pre-existing issues like drainage, but the following general process for the Bent grass greens and couch grass tees was followed.

- Glyphosate 600 applied and allowed a 4-week kill. Some of the couch tees required a second application.
- 100mm of the thatch and turf was removed with a tracked loader and bobcat.

• Due to budget constraints loam was saved and reused on the greens.

• The areas were tilled with a tractor and roto tiller, then rolled and hand worked to get some of the playing shape or contours back into the greens.

• An 80/20 sand and compost underlay were mixed specifically for the job and was laid at 100mm depth, before levelling using drag mats and levelling bars.

• Prior to laying the TifTuf a starter fertiliser with water saving crystals was applied to the greens.

### Installation

TifTuf was freshly cut each day during the installation process and trucked to West Wyalong from Wagga Wagga where RivTurf is based. The first stage was completed in

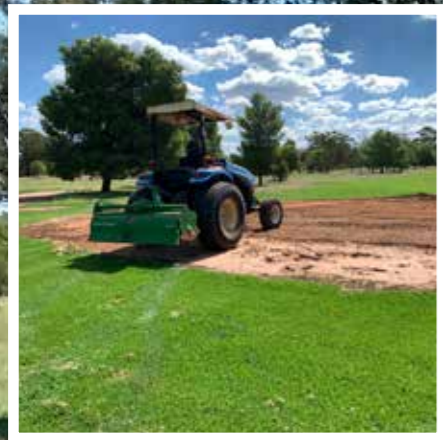
March 2020 with the balance of the greens and tees being completed in April 2021.

Once laid, the TifTuf was rolled and watered 3 times a day for 4 days before being tapered off. The greens were top dressed 2 to 3 times over the grow in period, depending on the individual green's requirements and at 3 months after being laid were dethatched.

All Outside Landscaping commented that "It was incredible how quickly it stitched together, laid down strong roots and how evenly it grew. Within months it was a playable surface."

Mowing commenced 2 and a half weeks after laying at 15mm and then gradually the mower was lowered during the month to 5mm. The tees are maintained at 15mm.





**Maintenance**

All Outside Landscaping conduct the ongoing maintenance at the course and have a roster of 2 to 3 mows a week on the greens in summer and 2 mows a week in winter. An application with Primo PGR is also applied monthly during the growing season.

A Toro Greensmaster 3150Q reel mower is used and it is currently cutting at 3.5mm on the greens. In winter that will be raised

to 4.5mm. Josh indicates that the 3.5mm height has provided the best response from the green as at lower cuts the greens health starts to deteriorate slightly, but the TifTuf can certainly handle being cut a little lower.

All Outside Landscaping work in conjunction with Living Turf who assist with Matchplay products. Josh indicates they are using Bio stimulants, fertilisers like MP Roots, MP Enhance, MP Foundation,

KelPlus, Liquid Nitrogen and a granular Spectrum 20-2-5 after renovation. They have also used Tricure as a wetting agent and TerraFirm as a penetrant.

The water supply is mixed, catchment and treated sewerage. Because of this samples are regularly taken to ensure the products used are appropriate. Any fungal issues have been addressed proactively with Dedicate, Instrata or Bumper.

As the fairways are kikuyu, the Club uses Spearhead Herbicide and Monument to control kikuyu encroachment on the greens.

Greens are lightly sanded regularly and then broomed. Any major renovation work is conducted in the September/October period when the greens are cored and sand used to top dress. All Outside anticipate doing another renovation during

the summer months in future to combat compaction due to traffic.

Josh indicates that the main difference between the care and maintenance required on the TifTuf greens and tees compared with the kikuyu fairways is water use. West Wyalong is a drought prone area and the Club has had irrigation issues in the past

as well as some other construction works which has meant areas of the course have gone without water. Josh says "The ability of the TifTuf to hold colour and density without water is far superior to the kikuyu fairways. Obviously it also tolerates being regularly cut lower than kikuyu as well."





# TRL NSW State Championships

BY JORDAN KROPP, PENRITH PANTHERS TRL TEAM CAPTAIN

TRL (Touch Rugby League) is non-contact Rugby League. Not to be confused with regular touch football, TRL incorporates rugby league 'play the balls' and kicking.

The TRL NSW State Championships have been on pause for the last few years due to the impact of COVID-19, but the 2022 event saw the invitation of a few Queensland and Victorian teams to make sure the competition would have enough numbers to proceed.

This year's event was hosted in Lake Macquarie at the Ernie Calland Rugby Fields. The event was conducted over 3 days from the 18th to the 20th of February, beginning with the Inaugural NSW vs Victoria State of Origin game, before 1 day of round robin competition and 1 day of finals.

On Friday the 18th of February the Penrith Panthers TRL team would venture from Brisbane to Lake Macquarie in a minibus for the chance to take out the 2022 NSW State Championships. The Penrith team were sporting a brand-new jersey including the logos of their sponsors Lawn Solutions Australia and Indigo Specialty Products.

Peter Kirby from Indigo Specialty Products gladly jumped on the opportunity to come on board as a sponsor, as did Lawn Solutions Australia, with both businesses having a strong connection to the sport and involvement with sports turf surfaces.

After a near 11-hour drive we were given a late call up to play in the inaugural NSW vs Victoria State of Origin game after players from the Victoria team had unfortunately tested positive to COVID-19 and were no longer able to participate.

The following morning we would arrive to the fields at 7:30am tender from the games the night before, but eager for the massive day ahead. Donning what has been named "the best designed kit at the comp", we made our way to Field 1 for our first game against the Newcastle Firebirds. Feeling a bit slow from our games the night before we managed to take an early lead and went into halftime 3-1. Going into the second half we were refocused and made sure to put the pace on our opposition to take bonus points and a good for and against. The score at full time was 12-1.



Our next game, a mere 30 minutes after the end of our previous saw us taking on Melbourne Magic; a team we had played side by side with during the origin game the night before. Making use of our speed and 2-points for female tries during Mixed games, we were able to dismiss the Melbourne Magic to a cruisy 18-3 victory.

Our dominance ensued against Samoa Mixed in an 11-1 victory and for the first time in the competition we seemed to face some struggle as we ventured against the Newcastle Crusaders in the peak heat of the day at 12:30pm. With low energies and the heat to go with it, we entered half time down 2-3. After a brief rehydration period and some quality team chat, we were able to keep Newcastle scoreless in the second half taking home the victory at 8-3.

1:30pm, our last game of the day against our toughest opposition, fellow Queensland travelling team the Logan City Lakers. A well decorated team in TRL with many touch football representative players that we knew would make our day difficult. As we had defeated all our opposition we concluded that we would meet the Lakers in either the semi final or the Grand Final on Sunday. We opted to not show them our best hand so that we could go into the finals with the element of surprise. While we still played a hard-fought game, we eventually went down 0-8.

We washed our wounds and made our way back to our accommodation to get cleaned up and prepare for the finals on Sunday.

We arrived at the fields Sunday morning for our 7:50am semi final against the

Melbourne Magic. We knew this was no longer round robin games and our score line didn't matter if we got the win. We knew that we would be able to take our foot off the pedal once we got in front so that we could conserve energy going into the Grand Final.

Things didn't start off with us very well after Melbourne scored two back-to-back tries, leaving us 0-2 down within the first five minutes. Clearly our game plan of not putting too much energy in was having a backwards effect and we knew that we would have to put all our energy into winning this one. We levelled the score up at halftime before walking away the victors of the game at 4-2.

Walking into the Grand Final we knew it was going to be a tough matchup and we would need to play our best. It didn't start out all that positive with Logan taking an early 1-point lead. We bounced back soon after with a kick try worth 2 points to give us the lead at 2-1. This was short lived and Logan put a few unanswered points on us before finally taking the game 7-2.

While we lost the Grand Final, overall the comp was a blast to be at. We spent a few days playing a lot of footy and we came away with some wins, a medal and one of our players Izzy Buirski received female player of the tournament which was another highlight.

After 5 more games than we had planned in mixed and men's we left Ernie Calland Fields with a mixed series win and a nice medal to go with it.



## Team List

- Jordan Kropp (C)
- Sam McKenna
- Dallas Cairns
- Corey Pocock
- Elijah Cabrera
- Brayden McKercher
- Ella Mccarthy
- Gabrielle Rice
- Izzy Buirski
- Kaylee-Anne Craig
- Natalie McClintock



# Robotic Lawnmower Technology

## HUSQVARNA CONTINUES TO LEAD INNOVATION

As we know, lawns and turf of any size require resources and care to ensure they maintain their quality. Mowing, fertilizing, watering, aerating, scarifying; the list goes on.

Thanks to the continuous innovations from Husqvarna and their ever-increasing range of robotic lawnmowers, efficient quality lawncare is becoming more attainable. The Australian range includes Husqvarna Automower®, with models to suit both residential and professional settings and now Husqvarna EPOS®, a wire-free solution for public spaces. This is just the beginning, the number of models in each range continues to expand and in 2023 we will see Husqvarna CEORA™ with the ability to manage lawn areas between 25,000m<sup>2</sup> and 75,000m<sup>2</sup> depending upon the required turf finish.

When Husqvarna launched its first robotic lawnmower back in 1995 it was largely underestimated. No one would have thought that these machines would be able to tackle the kind of outdoor spaces in which they are in use today or deliver the high quality, consistent and repeatable results that they are achieving.

It goes without saying that the biggest benefit of robotic lawnmowing is that the mowing is done autonomously, day or night, and without the need for skilled human resources. In Australia Husqvarna Automower® are popping up on the commercial green areas of places such as hotels, wineries, industrial parks, hospitals, shopping centers and sporting grounds to name a few.

The genius of Husqvarna robotic lawnmowers is in the simplicity of their concept. The mower



can ensure a consistently healthy lawn because it continuously cuts just a few millimeters off the turf at regular intervals. The mower's razor-sharp blades cut the grass cleanly allowing for healthy regrowth. The fine green clippings are left on the area as natural fertilizer ensuring the quality of the turf. As a result, grass roots grow up to 25% deeper and important nutrients are not only returned to the lawn, but the fine grass mulch that results from the cutting also helps protect the grass from drought.

Thanks to the intelligent random cutting pattern, all Husqvarna robotic lawnmowers achieve a constant cut without tracks. Smart features built into the product also automatically adjust the mowing frequency to the growth rate of the grass. In this way, weeds, wild grass and moss can be reduced in the lawn and costs for fertilizers and other lawn care measures can be reduced.

Robotic lawnmowers also impress with the positive properties of cordless tools: being whisper quiet, direct emission-free and sustainable. The silence offers a great advantage, especially in noise-sensitive areas such as aged care, schools, hospitals, or hospitality. Sustainability is obviously a top priority for all businesses.

Husqvarna robotic lawnmowers also make no compromises when it comes to safety and security. Features such as object detection, sensitive impact and lifting or tilting sensors stop the mower immediately if necessary. While unique pin codes, alarms, GPS tracking and geofencing all minimise the risk of theft.

For the special demands on public lawns, the professional Automower® 550 can handle areas of up to 5,000m<sup>2</sup> and the all-wheel drive model 535 AWD can even mow slopes of up to 70 percent inclines. These models

Husqvarna EPOS (short for: Exact Positioning Operating System) marks another technological breakthrough in the field of autonomous mowing; robotic lawnmowers communicate with the satellites using the reference station.

work within a boundary wire that is easily and unobtrusively laid underground at the edges of the lawn defines the area to be mowed.

This year Husqvarna will set a milestone in public green space maintenance by introducing the 550 EPOS® model that; thanks to satellite technology, are the advent of wire-free robotic lawn mowing solutions.

Husqvarna EPOS® is a high-precision satellite navigation system for Husqvarna's robotic lawn mowers. Instead of using a traditional boundary wire laid along the edges of the lawn, the area where the machines can be used is virtually delimited using satellite data.

Not to rest on their laurels; in 2023, Husqvarna Australia will be taking commercial turf care forward again with its CEORA™ robotic lawnmower. CEORA™ is designed to tackle large areas up to 75,000m<sup>2</sup> and ensures a

green, dense lawn thanks to its unique cutting technology in conjunction with daily mowing frequency and low ground pressure.

Thanks to CEORA's™ track by track technology the mowers achieve a high standard of efficiency offering a 30% reduction in costs in comparison to conventional commercial combustion mowers.

Even more exciting are the promised adaptations and accessories that will be available for the CEORA™ after its release that will enable lawn stripes, line painting and low-cut deck for golf and other grass sports.

With all this said, the most impressive benefit of the CEORA™ series will be that it will tap into truly space age technology to work free of guide wires. With the help of a reference station equipped with GNSS technology - a



Husqvarna Automower® 535AWD



Built for autonomous, safe green maintenance of large areas: Husqvarna CEORA™ is characterized by low ground pressure, a safe cutting system and object detection/avoidance.

type of high precision GPS - the location of the robotic mower can be recorded to within a few centimeters and a mowing accuracy of 2-3 centimeters can be achieved.

The CEORA™ defines a virtual boundary that is flexible and open to the need to make spontaneous changes to exclude certain areas of grass for reasons including maintenance and events. The simple, flexible installation and the option of spontaneously excluding mowing areas and closed areas open unimagined possibilities.

Almost 30 years of innovation have led to the current and future Husqvarna robotic lawnmowers that we are aware of today; we can only look forward to the advances that this global leader in outdoor power equipment is sure to bring in the coming years.



# Managing Conflict & Having Difficult Conversations

BY BEN GIBSON, THE TOOLBOX TEAM

**In our work at The Toolbox Team we get to work with staff and teams in the turf industry across Australia, at all different levels of authority throughout the organisations and arguably the biggest challenge for people in leadership is their reluctance to have difficult conversations.**

As humans, we are hardwired to avoid conflict. People generally do not like upsetting other people. This is due to a genetic disposition to connect and be a part of a group that stems back to the prehistoric era, in which connection with a group meant safety from predators. We also have an innate desire to be approved of and liked by others. Even today, we are still seeking connection for protection whether in teams, businesses, industries or countries.

This is obviously stronger in some individuals than others, but at work people generally want to contribute to the overall goals of the organisation and are seeking safety through connection and conformance to team vision, values and goals.

When we upset others we create potential threats, become worried or anxious about potential conflict and as a result frequently delay or completely avoid difficult conversations altogether.

**Question:**

- In your life has delaying, avoiding or 'stuffing something under the rug' and hoping it would go away ever made the situation better?
- Has it ever improved the outcome for you, the team or other party involved?

Over time and with experience, it becomes easier to have difficult conversations with others. Before approaching the conversation it is beneficial to consider:

What has led to the need to have the conversation?

- The performance of the other party in the lead up to the conversation.
- Our own performance in the lead up to the conversation.
- Using empathy. Put yourself in their shoes to see from their angle what has led to this scenario.
- Do their actions align with the team culture and vision that has been communicated to them?
- Are they acting in their own best interest or that of the team?

These are just some ideas (that can be done in a few minutes) prior to having a difficult conversation, which can provide great perspective and have a significant impact on the likelihood of a successful outcome.

Failing to have difficult conversations can do fatal damage to the team and culture you have worked so hard to develop. The damage is done to your team not by what you have said, but by what you fail to say. If you have a staff member, contractor or senior manager in your organisation who is treating you or the team unfairly, unethically, or intentionally being disruptive, believe me, your team is watching intently to see the actions you will take.

Taking no action just screams from the rafters, "I am kind of OK with this level of performance/behaviour" or alternatively, even worse, "I do not care enough about this team and what we are trying to achieve that I cannot have a short, tough conversation on their behalf."

In former roles, I have witnessed just how damaging this behaviour is to the productivity and engagement of the rest of the team, "They don't care, so why should I?" "They really don't have our backs even after all we have done for them," "They are all talk and no action," and the list goes on.

This is a HUGE opportunity to demonstrate the 'cut of your leadership jib', how passionate you are about the vision for the team, how much you value the team's contribution and that you have their back.

Take it on! Difficult conversations become easier when you align with your why and the team's objectives. If the behaviours are damaging to the hard work and culture of something you have poured your blood, sweat and tears into, funnily enough, it gets much easier to address the issue.



**+ ABOVE THE LINE BEHAVIOURS**

- Taking responsibility
- "See it" (don't ignore it!)
- Discretionary effort
- Ownership
- Find solutions
- Ask for and give feedback
- Enthusiastic
- Take action
- Look for improvement

---

**- BELOW THE LINE BEHAVIOURS**

- Blame
- Self-defence
- Poor communication
- Criticism
- Dishonesty
- Not my fault!
- Lack of Trust
- Every man for themselves!
- Bullying or gaslighting

One thing is certain: When having difficult conversations, things can sometimes get heated. If you are talking to someone about their performance, their first reaction is often to get defensive, take it personally and at times, make it a personal vendetta or grudge.

One of the primary aims of facilitating difficult professional conversations is to take any opportunity to keep the conversation factual and nonpersonal. Do not use opinions or general consensus but rather black-and-white examples that are far more difficult to be disputed. De-personalising the conversation has a great impact on maintaining open lines of communication and professionalism.

When conversations get heated they can get emotional and if the other party is particularly upset, it can be easy to get rattled and lose your train of thought (and importantly, the objective of the conversation). If you do get rattled, you can forget to raise and address important elements of the conversation and miss the opportunity to resolve the issue or attain the desired outcome.

So, if you are like me, you do not have many spare hours to prepare for difficult conversations. I want to share with you a simple structure, which can be done in five minutes and fit on the back of a beer coaster.

The benefits of allocating even a few minutes of planning before going into your conversation are significant. Planning helps you:

- Ensure you have covered all the topics/elements you wanted to discuss.
- Review the facts of the situation to avoid opinions or generalisations.
- Create a structure to fall back on if the other party starts getting emotional.
- Ensure the conversation sticks to a practical time limit (neither party waffles off track).
- Ensure you leave the conversation with mutual understanding of what is expected in the future (often forgotten, but a vital part of difficult conversations).

*In leadership, sometimes you have to make the tough calls, tackle prickly subjects and stand up for what you and the team have worked so hard to achieve. Things don't get better if you just avoid them. I think the passion for what we are doing and seeing how hard the team works to achieve it makes it pretty easy for me to stand up for them and the club!*

**Pat Wilson, Golf Course Superintendent**  
Pambula Merimbula Golf Club

**1. Facts.** When having difficult conversations, use only facts. Hearsay, personal opinions or generalisations will only lead to frustration and emotion from the other party. That person will end up feeling accused and judged; not the basis for a successful conversation.

**2. Concerns.** This is a particularly important step in this process (they are all important) as this is where you explain the impact that their behaviour is having on the team (not just on you) and highlighting the fact that you are not just raising this because it annoys you personally but because you are worried about the impact on the wider group. No one wants to be the person who upsets or offends the group or creates more work for their teammates.

Correct: *“Do you understand that when you fail to put the tools away properly at the end of your shift, it means the entire team has to stay back half an hour and put them away for you?”*

Incorrect: *“It really bugs me when you don’t put the tools away at the end of your shift.”*  
Get the drift?

**3. Is everything OK?** Remember, we trust and think the best of our team, contractors and suppliers. Show them you are concerned about the fact that they have been late or they have made a mistake or they have offended someone. Do this by expressing your concern, “Michael, this behaviour is really unlike you. You are one of our strongest team members.” We really want to give the person an opportunity for input here and a chance to explain their behaviour or performance.

If we are talking to a team member who has had a distinct change in performance or behaviour, in my experience, I have usually been able to identify a change in circumstance. They could be moving house, broken up with their partner, working a second job, struggling at TAFE, etc. If you use your listening, empathy and communication skills, you can often get to the bottom of and resolve the issue here.

Unbeknownst to you, let’s say, the club may not have paid a contractor’s last two invoices, so they have stopped attending site. Being open and giving them the opportunity for input is vital in working toward the most favourable outcome for all parties. “Oh, sorry mate. Let’s ring the club right now and get this cleared up!” BOOM! done. But you would not have even known



if you had not effectively planned, used your emotional control and communication skills as a leader.

**4. Clear Commitment.** Every difficult conversation must finish with a clear communication of future performance expectations and agreement from both parties to commit. “Brad, moving forward, I need you to complete a Pesticide Application Record everytime you spray. Do you understand and agree to do this?” This is for a couple of reasons:

a. To increase the likelihood you will actually get the improvement or change being sought.

b. It makes any following performance management clear as they have committed to the level of performance required.

Example: Michael has been late for work three mornings out of the last eight. It is very out of character for a long-term, reliable team member who previously prided himself on his punctuality.

**1. Facts:** “Michael, on Tuesday the 15th, Friday the 18th and Monday the 21st, you

were more than an hour late for work” (factual). Not: “Michael, it seems to me you are always late for work” (personal, generalised opinion).

**2. Concerns:** “Michael, I am concerned as you being late is having a big impact on the entire team. We cannot allocate work tasks properly in the morning as we do not know if you are turning up and it means we are rushing to get things done. We are not doing the best job we can as we try to cover for you.”

**3. Everything OK?:** “This is really unlike you Michael, you have always prided yourself on your punctuality. Is there anything preventing you from getting to work on time? Is everything OK?”

**4. Clear Commitment:** “From here on, I need you to be at work at 6 a.m. every day and call me at least one hour before if you are unable to come in.” Then, importantly: “Do you understand and agree to this Michael?”

Difficult conversations become easier if we are clear, factual, fair, provide an opportunity for input and clarify future expectations. Get handle on this aspect of your leadership and see improvements across your team and feel your stress reduce.

The Toolbox Team provides practical and engaging safety and environmental compliance resources to the golf and sports turf industry.



# The Nx-Generation in Turf

**TURF AUSTRALIA NXGEN CONFERENCE BY JENNY ZADRO, MARKET DEVELOPMENT MANAGER, TURF AUSTRALIA**



Shoal Bay Convention Centre - Port Stephens NSW  
Sunday, 20th - Tuesday 22nd February 2022

Providing opportunities for the next generation of turf growers is the focus for the Turf Australia NxGen program and after two years of not being able to hold the event it was wonderful to welcome a group of enthusiastic growers to Shoal Bay in NSW, in the Hunter Port Stephens area. Late

February saw around 30 delegates at the turf levy supported event and we are proud to have Lawn Solutions Australia as the major partner of this important project.

Delegates were offered a wide variety of information from presenters and activities.

We commenced with welcome drinks and dinner to meet new colleagues and catch up with friends. Day one of the conference provided opportunities to learn how to run a smarter more efficient business, the importance of customer service and contribute to what a turf production training

program could look like. A great team building activity was also conducted that supported a local charity group and put some amazing smiles on the faces of some less fortunate kids. It was action packed and a great start to the event.

The final day kicked off with on farm learning from the legendary Brent Redman, founder of Sir Walter DNA Certified Buffalo Grass at Buchanan Turf where delegates had a chance to walk the farm,

review new trials, inspect machinery and learn from Brent's experiences. We then headed to the Local Agricultural Campus, Tocal College, to learn and watch demonstrations on farm automation.

## Conference Speakers

### Justin Herald

*Managing Director of Customer Culture*

At the age of 25 with only \$50 to his name, Justin Herald set about changing the course of his life. Justin created Attitude Inc, a clothing brand that became an international licensing success that turned over more than \$20 million per year.

Justin's success was so well noted that he was named the "International Entrepreneur of the Year" for 2005. He recently was also awarded the Future Leaders Award, which recognises him as being one of the 50 most influential leaders of the next generation in Australia.

Justin is also Managing Director of Customer Culture, one of Australia's leading customer service and customer engagement training companies, that not only teaches staff the "how" to give great service but more importantly, "why" it is needed.

### Bruce Yelland

*Moshie*

Moshie specialises in developing individuals, teams, leaders and organisations across many industries with a particular focus on LEAN, Continuous Improvement and Leadership Development.

Bruce has been working and consulting in Continuous Improvement for more than 20 years. Originally with a background in Agriculture and Warehousing & Distribution, Bruce has extensive experience working with businesses across many industries, including Food & Wine Production, Warehousing & Distribution, Information Technology, Utilities, Engineering & Fabrication, Business Services & more recently Horticulture.

### Brent Redman

*Founder of Sir Walter*

Buchanan Turf is the biggest turf farm in the Hunter region and the Home of Sir Walter DNA Certified Buffalo. Starting out in 1974, the original farm was located at Buchanan via East Maitland, but since 1985 they have been at Bolwarra. Set on the rich flood plain of the Hunter River this has proven to be the



perfect location for grass to grow. Brent showed us around the farm and shared his story and experiences as a turf producer. The visit included looking at different machinery and a variety of turf species including trial sites.

### Matt Notley

*Tocal Agricultural College*

Tocal College has modern training facilities and equipment as well as commercial and demonstration farm enterprises including beef, dairy, sheep, horses, poultry and cropping operating on the 2200-hectare property. Matt Notley from Tocal College was our guide and focused on precision ag and the research undertaken by the Australian Centre for Field Robotics at Tocal. Matt focused on the complex soil profiles at the farm and understanding how soils inform management decisions for any area of land and particularly farm enterprises.

To meet the requirements of the project, Turf Australia will hold an additional NxGen event later in 2022 and hope to see more under 40's turf production workers at the event. It's a great way to build a strong network of people to support you in your working career in turf production.



# A Touch of Grange for a Gem by the Sea

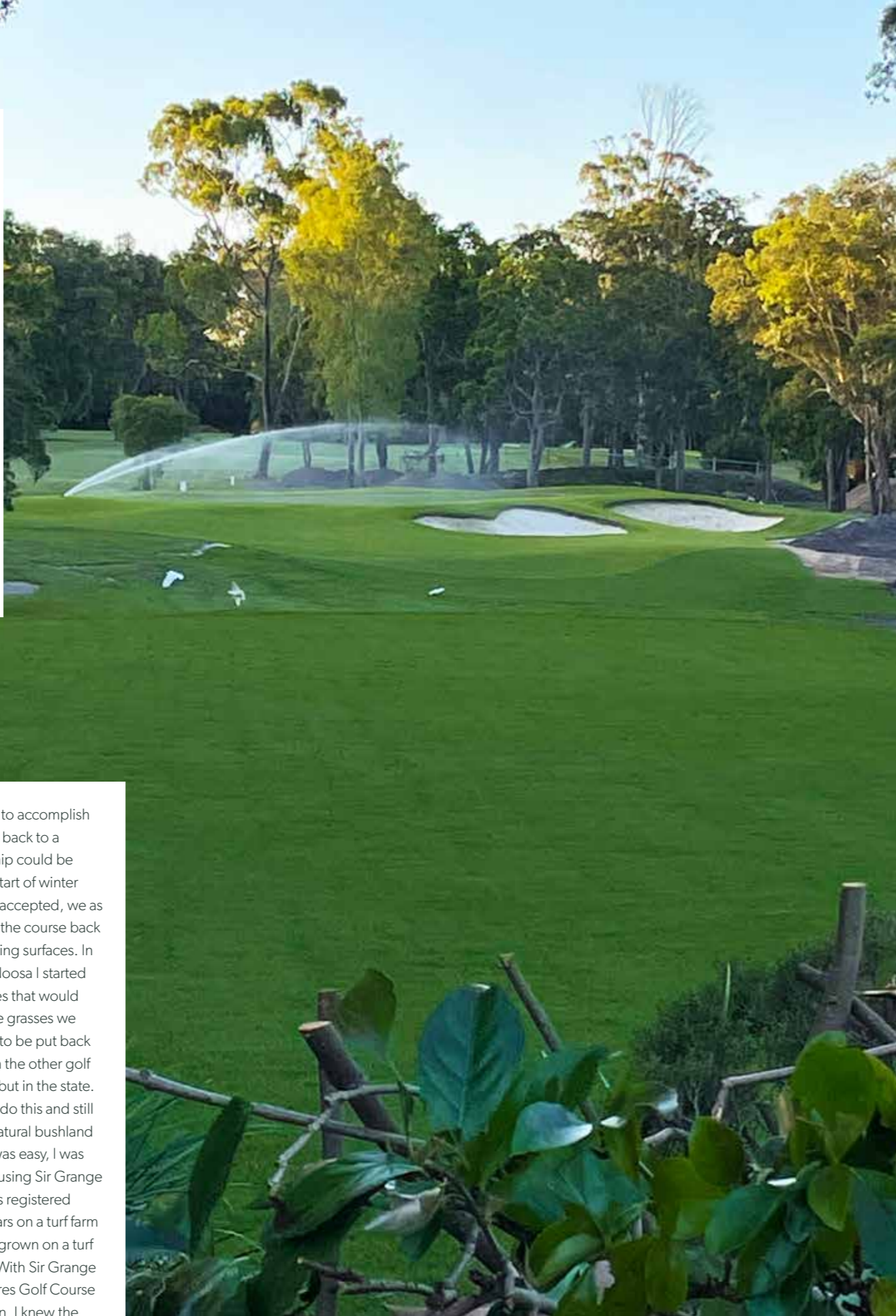
BY MICHAEL PASCOE, GOLF COURSE SUPERINTENDENT, NOOSA GOLF CLUB

The Noosa Golf Club is truly a hidden gem by the sea. The venue's lush setting is stretched over acres of grassy land and is surrounded by beautiful Australian bushland. Tewanin Noosa Golf Club was established in 1937 firstly as a 9-hole golf course, then to a 12-hole course before finally becoming an 18-hole golf course. It has since undergone major changes and upgrades which has served the course well over those years.

In 2020 Richard Chamberlain was commissioned to produce a Master Plan for Noosa Golf Club. With strong bones the layout of the course did not need to be touched. Many of the current greens were in the 200-350m<sup>2</sup> range registering well under a desired 1-hectare size. Tees were also a little on the small size measuring just over 5,000m<sup>2</sup>. With 75-80,000 rounds per year, we needed two grass types that would produce superior playing surfaces but would also stand up to the wear and tear of that number of rounds, with shade also a huge factor.

A major reason for me coming back to Australia was to be a part of something special and something that I could sink my teeth into, Noosa's Master Plan ticked all the boxes for me. After arriving back in Australia

in April 2021 there was a lot to accomplish on the course first to bring it back to a standard that the membership could be proud of. Coming in at the start of winter was not ideal but challenge accepted, we as a crew went about bringing the course back into shape starting with playing surfaces. In just a few months being at Noosa I started to get a real feel for the issues that would influence my decision on the grasses we would choose. We needed to be put back on the map, a standout from the other golf courses not only in the area but in the state. We needed to find a way to do this and still stay true to our layout and natural bushland setting. For me the choice was easy, I was lucky enough to have been using Sir Grange Zoysia (or Zeon Zoysia as it is registered overseas) for the last two years on a turf farm where it was harvested and grown on a turf paddock over 14-hectares. With Sir Grange also growing at Hoiana Shores Golf Course a Robert Trent Jones 2 design, I knew the



capabilities and the growing habits of this sustainable grass and knew it would fit in perfectly here at Noosa.

The factors that led me to choose Sir Grange Zoysia included its sustainability through low pesticide requirements, less mowing, drought tolerance and versatility. Another big factor for golf is how well the grass presents, including its playability. We have an ageing membership and with the Sir Grange helping the ball sit up it allows the high handicapper to chip or putt but also provides the mid to lower handicapper a variety of shots that can be played. Tif Eagle was the greens grass of choice and the club went about putting in a 20th hole so that we could start with the Master Plan with two holes per year being constructed. The first test for the Sir Grange was passed with flying colours. The membership was sceptical at first but when they saw the colour and how the ball sat up, many hearts were won. I knew the path was paved for Sir Grange to become the grass of choice on our tees and green surrounds going forward.

In November 2021, Atlas Golf Services won the tender to start our Master Plan on the golf course beginning on our 12th hole then followed by the 5th, both are par 3's next to each other so that was a main factor in selecting where we would start. With relatively short par 3's, the 12th being 130m and the 5th 137m, I felt we could really make a statement with Sir Grange. The 12th was completed before Australia Day with the first Zoysia being laid by Lawn Solutions Australia Member Daleys Turf, who I cannot speak more highly of in their professionalism and quality of turf. Owner Terry Daley and his team delivered above expectations, laying close to 2,000m<sup>2</sup> of turf, mowed at 8mm for delivery in a day and a half. All turf was cut in using diamond battery powered hand grinders.

Atlas Golf turned their attention to the 5th hole straight away and during this time we encountered 722mm of rain in 4 days, washing out completely a third of our new 5th green. The 5th reconstruction was a true test for Atlas Golf and I could not thank Jim and the team enough for their professionalism, patience, and expertise in restoring all the hard work that they had just put into the 5th green to rebuild and have it ready for turfing. Twin View turf, another Lawn Solutions Australia Member

was contracted to lay the 5th hole and Project Manager Trent Hobson was fantastic in managing what turned out to be a tricky install. 5 weeks behind schedule and with the concrete pathing now put in, the hole can now grow in and take shape.

Looking back on the last 5 months it has been a rewarding, educating and fulfilling construction process. Some lessons learnt and we are now well under way into Noosa GC's Master Plan with schedule works for the next two holes to be under construction in September this year. Our membership is very eager to play our new 12th hole which will be opened ahead of the original schedule. The 5th hole will require a little longer but is now progressing nicely for an opening later this year.

All of this could not have happened without the brave and bold committee of Noosa Golf Club who stepped out of their comfort zone and realised the course needed to be upgraded for the future. Being able to go with a new grass such as Sir Grange Zoysia is a bold move and one that will reward not only the club in its many positive attributes and sustainability but also for the membership who will get to play on a superior playing surface that will only get better with age.



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COVER ASSEMBLY	406-349-700	406-000-024	406-000-024
FLEX CONES	N/A	406-000-023	406-000-023



## PEGASUS/S4

	MAIN PTO SHAFT	SIDE PTO SHAFTS	REAR PTO SHAFT
PTO SHAFT ASSEMBLY	406-340-890	406-340-590	406-340-570
COVER ASSEMBLY	406-349-700	406-348-000	406-348-000



## PROCUT/S4

	PROCUT 178 & 210	PROCUT 237 & 290
PTO SHAFT ASSEMBLY	406-340-560	406-340-840
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# Turfing Across the World

BY STEVE LALOR, GOLF COURSE SUPERINTENDENT OF TOWNSVILLE GOLF CLUB

Looking at the busted blisters I have on my hands today makes me reminisce about when I first became interested in the turf industry. One week's work experience during high school made me realise that this was the direction I wanted to go. Working outdoors had always appealed to me and this was a great environment to start my journey. Fortunately, before school finished, I had secured an apprenticeship at Toowoomba Golf Club under Phillip Knight. It was a small crew of 8 with three apprentices including me. Toowoomba was a good grounding for my introduction to turf management. Four years went by quickly and an opportunity arose to work at Royal Queensland in preparation for the 1997 PGA Players Championship.

Six months later I was on a plane travelling to Japan to work at a 45-hole golf complex. Working in Japan was a stark introduction to working overseas as no one on the crew could speak English, while the use of hand signals and broken Japanese/English to communicate was shared. Tojo Country Club consisted of 18 holes with bent grass greens and Zoysia Japonica over the rest of the course. Okura Country Club was unique as it carried double greens over the 27 holes. Zoysia Matrella and bent grass were the turf types on greens. These greens would be played through different seasons to alleviate wear from play as the course would have a full field of golf every day of the week, regardless of the weather.



After my contract finished in Japan, I headed back home and took up a position at Indooroopilly Golf Club. I was involved in several major projects which piqued my interest in golf course construction. Whilst at Indooroopilly I met with Mike O'Keefe from The Ohio State University. We discussed the Ohio Program and what options were available to me. I asked about construction and was excited to hear Ohio worked with one of the best Golf Course Builders in the country, Maccurrach Golf Constructions.

My Ohio Program Internship began at Pinehurst Resort in North Carolina. Then an 8-golf course complex with Course #2 being the famed US Open venue. I started in September 2000 at The Centennial or #8. There were 12 other interns working at Pinehurst at the time from all over the world including Scotland, Ireland, England, Portugal,

Australia and New Zealand. It was a great period of my career as long-term friendships were made. Construction was still biting at me, so after some discussion with Mike O'Keefe and Superintendent on #8, Jeff Hill, we decided that I would move down to Florida with Maccurrach Golf Construction after I completed six months at Pinehurst.

Palencia Country Club in St Augustine was the first stop with Maccurrach. Although I was only at Palencia for a month, seeing the processes that were involved in complete golf course construction gave me a good base to move on to the next project. I relocated to Gainesville, Florida to carry out a full rebuild of the University of Florida golf course. My role was Assistant Construction Superintendent. This was a great role for me to teach the workforce about golf course construction, as most of the guys on crew were from the University

and had no golf course experience at all. The crew were enthusiastic and eager to learn the construction game and we completed the project in 8 months. From there I moved back to North Carolina to assist in the construction of a Jack Nicklaus Signature course, The Club at Longview. This was a great posting as it was so close to Pinehurst. I would travel back often to catch up with friends. The clearing and shaping phases were completed at Longview as my time on the Ohio program came to an end.

Back in Brisbane and off to another course. The Brisbane Golf Course maintenance team was another great mix of people with a good team bond on and off the golf course. After two years at Brisbane, I moved on to Royal Pines Resort on the Gold Coast.

Tournament golf is always a great way to showcase a golf course. The Australian Ladies Masters was a televised tournament that had

been held at Royal Pines since its inception. To be a part of the planning team was fantastic. Gaining this experience would assist me with tools and skills I thought I would never use again. Whilst at Royal Pines, I met a contractor who was engaged to carry out some works on the course. After some lengthy discussions with him, I had landed a Construction Manager role in Fiji.

Landing in Fiji in the middle of July was a climatic shock. From -4 degrees Celsius to 30 degrees in four hours was staggering. When I got to site later that day, I was knocked over again. The site was amazing. Elevations rising from sea level to nearly 100m above sea level. The course had been shaped before my arrival, however due to weather and political unrest, the construction of the course shut down for several months. We had to virtually start clearing and shaping again. The crew

of around 45 people included guys from Indonesia, Philippines, Mexico and of course Fiji. Construction of the course had its own set of challenges, the weather being one. We had 150mm of rain fall in two hours washing away sections of 4 holes that were ready to be handed over to the grow in team. Two days later Cyclone Gene rolled through and compounded the damages to the course. With the resilient attitude of the Fijian people the project was completed in two years. The opening of the course coincided with the Fiji Open. The course still had some punch list items to finish; however my time had ended on the development.

A year later, I found myself flying back to Fiji to take on the Golf Course Superintendent role at Natadola Bay Golf Course. It was great to be back. This time my wife and four-month-old daughter were with me. Within the first



Steve Lalor and Vijay Singh



3 months at the course, all irrigation pumps failed. I was left to water the golf course with a suction end pump that could only manage to operate 6 sprinklers at a time. There were 1000 heads on the course in total. We went to 24hr watering to try and keep the surfaces healthy.

The first day of watering, I came into the Maintenance Facility after my 8-hour shift to allocate jobs for the day when several members

of the crew came running out carrying one of our crew members, Apimeleki, in their arms. Sadly, Apimeleki had suffered a massive heart attack and after desperate attempts to resuscitate him, he was gone. Apimeleki was one of my construction team and had come around to our house a week earlier to celebrate my daughter's 1st birthday. Needless to say, we were all devastated at the loss.

Time went by and the course had started to get a small following from international guests and in 2013 the Fiji International was launched with the first tournament to be held in August of 2014. A great time to hold it as this was during the peak tourist season. The Fiji International was contracted for 5 years bringing some of the world's best golfers, past and present, to Fiji. The likes of Nick Price, Vijay Singh,

Ernie Els, Mike Weir, Matt Kuchar and Brandt Snedeker all made it down for the tournament with the latter two taking the winner's cheque. For the final three years of the tournament the European Tour tri-sanctioned the event with PGA Australasia and the Asian Tour. This was probably the highlight of my career to date, preparing a course that I'd built for a televised tournament with some of the best players in the world teeing it up. Where to go now?

Over the next few years, I played with the idea of setting up a turf nursery in Nadi, the main tourist hub of Fiji, to service the resorts and luxury homes in the area. In 2020, that dream became a reality when we purchased 4ha of sugarcane fields to convert into turf production. After earthworks and irrigation installation, we planted 1500m2 of Zoysia Matrella as a base to then transplant across the whole site. At the same time my wife and I were also discussing the possibility of returning to Australia to be closer to family, given the COVID situation around the world and increasing cases daily in Fiji. Our eldest child was 11 and had not lived in Australia for longer than two weeks at a time. I began looking for openings and coincidentally the Golf Course Superintendents position at Townsville Golf Club had become available. Townsville Golf Club were looking for someone to oversee the completion of the Course Masterplan designed by Bob Harrison and Karrie Webb. In a matter of weeks and seven PCR tests later, we were in Townsville. There is a mountain of work to get through, with many challenges ahead but I am looking forward to improving the playability and follow the plans to fulfill the marvelous new design.

Fiji will always have a place in my heart and I will no doubt be back and forth with a growing business there. However, I am happy to be back in Australia for the time being. Starting out as an apprentice, I never thought turf could take me around the world and allow me to meet so many talented people who have become mentors, pupils and friends. I still have a few years left in me and look forward to creating many more relationships within the turf industry.

# Australia's Favourite Garden Show is Back

## THE MELBOURNE INTERNATIONAL FLOWER AND GARDEN SHOW 2022

After a two-year hiatus due to COVID-19 restrictions, the Melbourne International Flower and Garden show, the biggest of its kind in the southern hemisphere returned!

Staged at the world heritage listed Royal Exhibition Building and Carlton Gardens from the 30th of March to the 3rd of April, this year's event was nothing short of incredible. 103,000 people attended the event across the five days, exceeding expectations and achieving pre-pandemic levels.

The Show features the best talent in landscaping, gardening and floral design from right around Australia. With a large range of exhibitors showcasing their garden products, innovation and design.

### The Lawn Solutions Australia display

Lawn Solutions Australia has enjoyed being an exhibitor and presenting partner at the Melbourne International Flower & Garden Show for many years.

This year's lawn display was simple yet striking with Jason Hodges and the team at Venus Landscaping designing and building the display over the week leading into the start of the event.

The display featured Lawn Solutions Australia's premium turf varieties Sir Walter DNA Certified Buffalo, TifTuf Hybrid



'Haven' from limelight landscapes featuring Sir Grange

Bermuda and Sir Grange Zoysia. All 3 varieties providing the focal point for the display which also included Jason Hodges' very own Buxus Balls grown on his farm in Berry, NSW.

A special edition to this year's display was a pathway through the raised lawn beds. The pathway was constructed using a blue metal base combined with a resin product

called StoneSet which bonds the material together, setting in place. The same product was used to create the Lawn Solutions Australia logo, with white pebble stencilled into shape and set in place.

Lawn Solutions Australia ambassadors Jason Hodges and Charlie Albone, both very talented landscapers and previous winners

at the show, were very excited to see the Show return in all its glory. Jason along with Joe Rogers from Lawn Solutions Australia, presented daily on the main stage sharing their knowledge on all things lawns. Charlie was also filming with Better Homes and Gardens throughout the week with the Show being a regular feature episode for each series.

The Show is renowned for the intricate display garden builds installed by Australia's leading landscape architects and designers. Lawn Solutions Australia's lawn varieties were featured heavily throughout these installations and played an important role in bringing the designs

together. Lawn Solutions Australia Member Lilydale Instant Lawn supplied top quality turf for many of these gardens, working closely with the talented landscape teams throughout the process.



**Winner - People's Choice**

Featuring Sir Walter DNA Certified

'More Than Meets the Eye' by Warners Nurseries and Robert Boyle winner of the People's Choice Award. This garden fused together 6 different garden aesthetics also receiving a Gold Show Garden Award alongside Jenkins' Inner Calm.



'Apertura' featuring Sir Walter



- Tiffuf**  
Hybrid Bermud
- University bred and turf variety.
  - Most drought tolerant.
  - First turf grass in hard Approved Water Mark.
  - Deep green colour.
  - High wear tolerance.
  - Excellent winter color.
  - Perfect for home lawns, playgrounds and public areas.



The Melbourne International Flower and Garden Show will return in 2023, bigger and better than ever.



# US Turf Experts Tour Down Under

The world is opening its doors again and the best in turf from the USA are coming back to our shores. In collaboration with the Australian Turf Certification Program (AusGAP), the International Turfgrass Genetic Assurance Program (ITGAP) and Lawn Solutions Australia, two of the international turf industries pre-eminent turf experts recently headed our way.

### **Billy Skaggs from Georgia Crop Improvement Association**

Mr Billy Skaggs, seasoned Production Field Inspector for the International Turfgrass Genetic Assurance Program (ITGAP) toured Australia visiting AusGAP clients ensuring ITGAP policies and practices are up to standard.

Mr Skaggs was in Australia from the 20th of May to the 3rd of June and as AusGAP is governed by ITGAP, he undertook an audit on all clients, documenting submissions and correspondence to ensure compliance to their policies and procedures. His visit also included turf variety inspections of the AusGAP programs production facilities in SE QLD, SA & VIC during this period.

AusGAP is the only independently endorsed turf certification program from ITGAP internationally. Mr Skaggs monitors turf production sites worldwide to ensure that turfgrasses are grown, inspected and sold under a rigorous set of rules and guidelines. ITGAP inspectors such as Mr Skaggs undertake third-party inspections to verify a member's compliance with ITGAP standards, provide reports of compliance (or non-compliance) to the owner of the turfgrass variety and to the member/grower and maintain all records of annual and quarterly certificates and inspections. ITGAP is the international iteration of AusGAP and is an internationally accepted and recognised verification and certification program for turfgrass production.

### **Dr Brian Schwartz, University of Georgia (UGA) Turfgrass Breeding Program**

Dr Brian Schwartz is a superstar of the turf world and is the man behind the release of what is proven to be the world's best couch grass, TifTuf Hybrid Bermuda. Dr Schwartz continues the work of legendary

turf breeder Dr Wayne Hanna, who planted over 27,700 couch grasses he had cross bred in 1993.

In 2009 Dr Schwartz arrived at UGA, expanded evaluation plots and developed real world test sites. After more than a decade of extensive trials with collaboration between a five-university collective known as the Specialty Crop Research Initiative (SCRI) the SCRI determined to release a single couch grass cultivar. This cultivar was the University of Georgia and Dr Schwartz's grass DT-1 which would officially be named TifTuf Hybrid Bermuda.

Dr Schwartz continues his extensive research and breeding program at UGA and we were excited to have had him in Australia this year to share his knowledge. Dr Schwartz was in Australia from the 9th to the 27th of May, he visited some of the industry's best turf growers, suppliers of TifTuf and presented at the Lawn Solutions Australia National Conference on the 24th of May.



# Turf Farm Inspections Ensure Quality Turf

## AUSGAP TURF CERTIFICATION PROGRAM

**Turf field inspections are at the heart of the AusGAP turf certification program. Attaining AusGAP certification for a turf variety takes a lot of hard work, with ongoing field inspections being conducted to maintain certification and to ensure continued genetic purity.**

AusGAP is The Australian Genetic Assurance Program for Turfgrass. Specialist turfgrasses have been derived from years of research and development by the world's leading turfgrass breeders. AusGAP uses a quality control framework including turf field inspections which ensures these turfgrasses maintain genetic purity, allowing them to perform and live up to what is expected of them within their application.

AusGAP field inspections occur biannually and turf producers supplement these inspections with compulsory quarterly self-inspections that are reported to AusGAP.

All turf farms with AusGAP Certified turfgrasses need to always have at least one AusGAP Certified Representative (ACR) on their staff. ACR's are a crucial part of the field inspection procedure through communication with the National AusGAP Program Manager.

The ACR ensures all farm staff adhere to AusGAP's requirements before the Program Manager or inspector can begin their thorough and comprehensive field inspections:



Fields need to be left unmown for at least 5 days prior to the inspection and have been mowed no more than 2 weeks prior.

Selective herbicides can be used to identify the colour difference between plant types.

All required paperwork: pre-planting assessments, planting form and quarterly self-inspections are up to date.

There may also be a third party involved in the process such as ITGAP (The International Turfgrass Genetic Assurance Program) or ASTC (Australian Sports Turf Consultants) who are able to provide their services as a third-party inspection when required to further consolidate the validity of the program.

### Pre-Inspection Requirements

There are multiple checks included in the

farm visit that must be made before the inspector can step foot on any paddock. At every entry point of the farm there is expected to be a bio security notice. Some visitors or their vehicles can put the bio security of the farm at risk and ultimately mean the genetic purity of AusGAP's certified varieties are at risk if not followed.

Paddock maps are to be up to date and provided prior to a farm inspection visit. This allows AusGAP to keep track of stock and evaluate the genetic purity of the registered and certified stock in production.

Every aspect of business compliance is audited as this backs up and provides context to what is happening in the paddock.

### AusGAP Field Inspection Process

Field inspections are used to evaluate compliance with the required checks undertaken to ensure the minimum standard is met.

Field isolation requirements are part of the high standards AusGAP enforces. Field isolation involves an artificial barrier and/or strip of bare land between varieties to prevent cross contamination. AusGAP require a minimum of 1.5 metres between grass varieties –perennial grasses in particular have a strong chance of cross contamination if not monitored.

Walking every paddock containing AusGAP certified varieties is at the core of the inspection process. This is undertaken to ensure all turf is free of pests, weeds and disease. During grow in is the most important time to ensure weed pressure is minimised.



AusGAP use an inspection flagging system to monitor contaminants or sections of paddock that need to be monitored. A yellow flag is used to mark a contamination and/or eradication area. A blue flag is used to mark an area to be monitored or a weed treatment area.

### Quality assessment items also assessed during AusGAP Field Inspection:

*Are field borders maintained between certified varieties and non-production areas?*

*Does irrigation equipment move from low non-producing areas into the production field or from one variety to another?*

*Is a wash down bay available to clean equipment between varieties and is there*

*an established procedure for cleaning equipment?*

*Is any part of a field subject to flooding?*

Conducting field inspections is AusGAP's way of monitoring and auditing turf and business standards to ensure the highest quality turfgrass is produced. These high industry standards provide the assurance to customers and end users that the turf they are receiving will be true to type and genetically pure.

For more information on the AusGAP program and how to ensure the turfgrass for your next project is AusGAP Certified, visit [www.ausgap.com.au](http://www.ausgap.com.au)

# Greener Lawns in Kurrajong Hills

Landscaped lawn installations for expansive domestic lawns are a big undertaking for both the customer and for the landscaper or turf installer. Ensuring the correct turf is selected to suit the area before commencement of the project needs to be the number one priority.

Murray and Wendy Forman live in the local government area of the City of Hawkesbury in Kurrajong Hills, NSW. After having little success with turf on two occasions previously the Forman's made the decision to remove and replace their front lawn and nature strip once more.

The Forman's visited turf supplier Greener Lawn where they met up with Anthony and Tim Muscat to discuss the situation in the hopes of finding a final solution.

## Turf Selection – TifTuf Hybrid Bermuda

The Forman's needed a robust and hardy grass that could handle some pretty harsh conditions. The grass also needed to look the part and provide them with the well-manicured finish that a property of this size deserved.

With the front lawn area, Greener Lawn recommended that the Forman's install TifTuf Hybrid Bermuda (couch grass). A grass variety that would handle the dry conditions experienced in summer and the cold temperatures and frost experienced during winter. It also holds colour extremely well



and would give the Forman's a grass variety that would fulfill all their requirements.

## Measure, Ground Preparation, and Installation

Once the turf decision was made by the Forman's, Greener Lawn visited them on site, measuring and assessing the area to determine the scope of works. The total

area to be completed was 1,192 square metres with ground preparation right through to final installation required.

The preparation component of Greener Lawn's quote included the removal of the existing lawn, a rotary hoe of the area, spreading and levelling of turf underlay, supply and application of gypsum for the

soil base and starter fertiliser and leveling of all areas ready to lay turf.

The TifTuf Hybrid Bermuda was then laid, completing the transformation of the Foreman's lawn, providing the solution they were hoping for.

"We can only speak so highly of the service, workmanship and promptness

that Greener Lawn have given us on this project," said Mr Foreman.

"We have no hesitation in recommending them to anyone who wishes to improve their front yard. Once again, thank you Mary, Anthony and Tim for your services you have supplied both with this project and after service information you have given us."

## Turf Contractor - Greener Lawn

Greener Lawn are a family owned and operated turf business based in Freemans Reach, also in the City of Hawkesbury. Greener Lawn is run by third generation turf farmers, soon to be fourth and have a wealth of experience in turf installation and supply for both the domestic and commercial markets.







# Power of the Past, Force of the Future

## THE LAWN SOLUTIONS AUSTRALIA NATIONAL CONFERENCE IS BACK!

Lismore suffered the most serious floods ever experienced in the region earlier this year with thousands of people being displaced from their homes and lives sadly lost in the devastation. Lawn Solutions Australia have been so excited to hold what was planned to be the 2022 LSA Conference in Ballina, that is until these recent tragic events.

With both the 2020 and 2021 conferences having to be cancelled due to the Covid Pandemic, nothing was going to stop the national network of turf members from finally getting together, networking and sharing a laugh in 2022.

### The Largest Turf Industry Conference in the Southern Hemisphere Finally Returns

The Lawn Solutions Australia Conference was finally able to return and what an event it



Monday May 23<sup>rd</sup> Firefly Automatix Cocktail Welcome Function  
Tuesday May 24<sup>th</sup> LSA Conference and Husqvarna Awards Dinner

was! This year's LSA Conference and Awards Night were held at Panthers Penrith in NSW. It was so great to catch up with LSA Members and industry partners and to see the successes we are all achieving throughout what has been a difficult period for many. We heard from some exceptional speakers who provided insights into turf science and research, product developments, economic

insights and stories of endurance, inspiration and motivation.

Lawn Solutions Australia are proud to have hosted some of Australia's best talents in their fields and international guest speakers for presentations throughout the conference.

### Conference Speakers

#### Dr. Brian Schwartz

Dr. Brian Schwartz is an Associate Professor of Turfgrass Breeding in the Department of Crop & Soil Sciences at the University of Georgia in Tifton. Dr. Schwartz provided insight into his turf breeding program and the rigorous research and investment that goes into producing an industry-changing new turfgrass. Dr. Schwartz is the man behind the release of what is proven to be the world's best couch grass, TifTuf Hybrid Bermuda. While in Australia, Dr. Schwartz also visited some of the industry's best turf growers and suppliers of TifTuf.

#### Bernard Salt

Bernard Salt is widely regarded as one of Australia's leading social commentators by business, the media and the broader community. Bernard spoke of the march of millennials towards middle age, the expected growth of suburbia, a shift from the city to the urban fringe and what this means for lawns and turf. While we have experienced many challenges recently, Bernard believes Australia and the turf industry are in a strong position for the coming years.

#### Jacqui Cooper

Jacqui Cooper is an entrepreneur, an author and a former five-time World Champion and Olympian Aerial Skier. Jacqui told her story, one of triumph, tragedy, defeat and success. Conference attendees were in awe of the courage and strength that Jacqui possessed and how she was able to keep on moving forwards toward her goal of competing at five Winter Olympic Games. Jacqui had many setbacks and numerous injuries resulting in surgeries throughout her career. But Jacqui was able to overcome all obstacles (that many believed to be impossible) because she refused to give up.

#### Billy Skaggs

Billy Skaggs is a seasoned Production Field Inspector for the International Turfgrass Genetic Assurance Program (ITGAP) and is Georgia Crop Improvement Association (GCIA) Certification Program Manager. ITGAP operates in coordination with AusGAP - Australia's Genetic Assurance Program for Turfgrass. Billy explained how ITGAP works and why the work they do in



Dr. Brian Schwartz



Bernard Salt



Jacqui Cooper

conjunction with AusGAP in Australia is so important when it comes to the quality and purity of turfgrass. While here in Australia, Billy also toured and undertook field assessments at turf farms to ensure policies and procedures were being followed. These assessments help to ensure the genetic purity of certified grasses like TifTuf Hybrid Bermuda and Sir Grange Zoysia.

#### Peter Switzer

Peter Switzer is one of Australia's leading business and financial commentators, launching his own business 20 years ago. The Switzer Group has since grown into multiple successful companies spanning media and publishing, financial services and business coaching. Peter provided commentary on the current economic

climate and how the budget and a new government will impact our industry. Peter also provided his forecast on what we should be expecting in the coming years with his information pointing to a positive outlook pending expected improvements in global supply chains and a declining impact of the war in Ukraine and Covid-19.

**Tom Potter**

As the founder of Eagle Boys, Tom Potter pioneered the pizza industry by implementing pizza delivery and a

radical approach to marketing. Tom told his incredible story of success and perseverance, through the highs and the lows. Tom was a baker by trade and took his expertise in food and customer service into the building and running of his own business which developed into a very successful national franchise. Tom had what some considered a difficult time slot, presenting as part of the awards dinner but captured the audience's attention with his matter-of-fact delivery and dry-witted humour.

**Charlie Albone**

Lawn Solutions Australia Brand Ambassador Charlie Albone welcomed conference attendees at the Cocktail Welcome Function. Charlie made his TV debut on the hit series 'Selling Houses Australia' before joining Better Homes and Gardens as a host. Charlie addressed the audience with his story of becoming a landscaper, his passion for the green life industry and his journey into television. Charlie explained how proud he is to represent and partner with LSA and how he looks forward to promoting LSA's premium turf brands in the coming years.

**Jason Hodges**

Lawn Solutions Australia Brand Ambassador Jason Hodges has been an important part of the LSA family for many years. Jason had the important role of MC throughout the conference and kept the audience entertained while encouraging strong involvement with speakers during post-presentation Q & A. Jason's love of gardening and landscaping led to his media career where he worked on Auction Squad and Better Homes and Gardens. It is always a pleasure having Jason with us and we thank him for his continued involvement with LSA.

Lawn Solutions Australia would like to thank the many sponsors involved with this year's conference. Without them, the quality of presenters and the knowledge accessible to the LSA network through such an event would not have been possible.

Thanks to all the LSA Members. We hope you had an amazing time at this year's Lawn Solutions Australia Conference, it was great seeing you all. Congratulations to the award winners, there were some truly outstanding

individuals who are a massive credit to their respective turf businesses. We couldn't be prouder of the resilience, hard work and dedication we see right across Australia from LSA Members - you are the best of the best.

Lawn Solutions Australia is looking forward to the 2023 conference with plans already beginning to take place to ensure it is one of the best conferences yet.



Billy Skaggs



Peter Switzer



Joe Rogers

**SPECIAL THANKS TO**  
**Trimax Mowing Systems, Husqvarna, Firefly Automatrix, Greenway Turf Solutions, ICL Group, NuTurf, Syngenta, STRI, Bayer, Adama, Tama, Finlease, Equipment Solutions, AusGAP**



# Building from a Balanced Base

**GREENWAY TURF SOLUTIONS' DIRECTOR AND HEAD AGRONOMIST, PAUL SPENCER WRITES ABOUT HOW FOCUSING ON TURF AGRONOMY WILL LEAD TO IMPROVED OUTCOMES FOR YOUR TURF**

When an effective soil nutrient, tissue and water testing program is implemented alongside regular pest, weed and pathogen monitoring, any agronomic concerns can be rapidly investigated and addressed.

Assessment of the base soil conditions forms an essential part of a successful turf management. It will ensure there are no nutritional factors limiting plant growth. Creating and maintaining a healthy root-zone environment will generate favourable soil conditions that produces strong turfgrass growth as efficiently and therefore as cost effectively as possible.

Soil, plant tissue and irrigation water quality analysis provide the basis to adequately assess the growing conditions. Applying soil and plant nutrients based on the results from these tests will maximise turfgrass growth and production through best agronomic practices. The correct interpretation of analytical results will ensure the necessary products are applied at the correct rate to address the identified deficiencies.

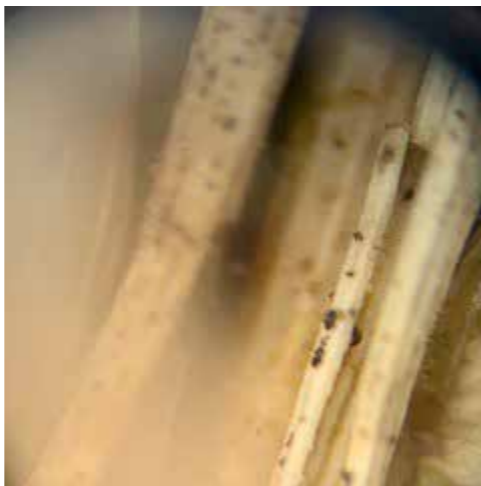
For example, if a soil is 1500 Kg per Ha deficient in calcium, and 1500 Kg per Ha of Gypsum is applied, the soil will still be deficient in calcium. Gypsum typically contains 23% calcium. Applying 1500 Kg per Ha of Gypsum will deliver 345 Kg per Ha of calcium, leaving a requirement of a further 1155 Kg of calcium (or 5021 Kg of Gypsum) to completely correct this deficiency.

While it is important to prevent and correct any nutrient deficiencies that will impact negatively on turf health, it is also desirable to avoid unnecessary and costly nutrient applications that will not deliver any greater growth outcome. When every dollar spent must give the best possible growth outcome, the effective utilisation of inputs is critical. For example, if phosphorous is at an adequate concentration in the soil and plant, then applying more phosphorous will not result in a greater growth response.

It is the correct interpretation of soil and tissue analysis that will form the basis of nutritional programs. This will prevent



Comparison of soil and plant nutrient deficiencies delaying harvest in the block on the right-hand side versus adequate nutrition and a healthy plant in the block on the left-hand side



unnecessary applications and therefore unnecessary costs. Combine the interpretation with the application of the right products at the right rate and over time deficiencies will be corrected and improvements will be made.

## Analyse for the presence of pathogens and pests in turf

Just as important as soil fertility and plant nutrition is being able to quickly and accurately identify turfgrass pathogens and pests limiting turf decline. Disease incidence and insect infestations can significantly prolong the grow-in of a turfgrass crop, delaying harvest as well as decreasing the performance of a sports field or ornamental lawn. The correct identification of a pathogen or pest is vital to ensure the correct treatments are applied to the turf for rectification.

Through the assistance of a handheld macroscope, an on-farm inspection by an experienced turf manager or agronomist can help with an initial diagnosis. A macroscope can help provide a preliminary diagnosis in the field particularly for any insects that may be difficult to spot with the naked eye. For turf pathogens, this initial diagnosis can be verified by collecting a sample of suspected plant material (leaves, thatch and roots) for complex laboratory analysis. A complex laboratory analysis includes 'plating out' on agar and incubation of the sample to assess mycelium growth and the dominant disease pathogens present. A laboratory analysis can confirm an on-farm assessment and provide greater insight to the pathogens present and their effect on the plant.

Accurate in-field assessments backed up by a complex diagnosis helps to ensure the correct chemicals are applied to treat the condition, meaning expenditure is not wasted on ineffective treatments that will increase costs.

A turf farm, a golf course, a sports field, a racetrack, a bowls club or even a home lawn; whatever turf you are looking after, an approach to turf management centred on agronomy will ensure you are building a balanced base for your turf as efficiently, effectively and economically as possible.

### FOLIAGE CONDITION

<b>General Vigour</b> Moderate	
<b>Presence of Lesions</b> Small lesions present.	
<b>Presence of Mycelium</b> No mycelium produced after incubation.	
<b>Additional Notes</b>	

### ROOT SYSTEM CONDITION

<b>Root Length</b> 5cm	<table border="1"> <tr> <th>Low</th> <th>Moderate</th> <th>Good</th> <th>Excellent</th> </tr> <tr> <td>0</td> <td>3.75</td> <td>7.5</td> <td>11.25</td> </tr> <tr> <td colspan="4">15</td> </tr> </table>	Low	Moderate	Good	Excellent	0	3.75	7.5	11.25	15				
Low	Moderate	Good	Excellent											
0	3.75	7.5	11.25											
15														
<b>Root Colour</b> Brown to Red														
<b>Thatch Depth</b> 2cm	<table border="1"> <tr> <th>Low</th> <th>Moderate</th> <th>High</th> </tr> <tr> <td>0.0</td> <td>1.5</td> <td>3.0</td> </tr> <tr> <td colspan="3">4.5</td> </tr> </table>	Low	Moderate	High	0.0	1.5	3.0	4.5						
Low	Moderate	High												
0.0	1.5	3.0												
4.5														
<b>Root Functionality</b> Moderate to poor.														

### PATHOGENS IDENTIFIED ON FOLIAGE / THATCH

<b>Common Name</b>	Smut									
<b>Scientific Name</b>	Ustilago spp.									
<b>Spores Identified</b>	Basidiospores									
<b>Severity</b>	Low									
<b>Hazard Rating</b>	<table border="1"> <tr> <th>Low</th> <th>Moderate</th> <th>High</th> <th>Very High</th> </tr> <tr> <td colspan="4">[Progressive color scale from green to red]</td> </tr> </table>		Low	Moderate	High	Very High	[Progressive color scale from green to red]			
Low	Moderate	High	Very High							
[Progressive color scale from green to red]										
<b>Common Name</b>	Anthraxnose									
<b>Scientific Name</b>	Colletotrichum graminicola									
<b>Spores Identified</b>	Acervuli									
<b>Severity</b>	Moderate									
<b>Hazard Rating</b>	<table border="1"> <tr> <th>Low</th> <th>Moderate</th> <th>High</th> <th>Very High</th> </tr> <tr> <td colspan="4">[Progressive color scale from green to red]</td> </tr> </table>		Low	Moderate	High	Very High	[Progressive color scale from green to red]			
Low	Moderate	High	Very High							
[Progressive color scale from green to red]										

## KEY POINTS TO TAKE AWAY

- Perform nutrient analysis to assess the soil and plant nutritional status
- Interpret analysis results to assess agronomic concerns and guide appropriate nutrient applications, addressing any deficiencies while ensuring no unnecessary applications
- Conduct on-farm inspections to identify turfgrass pathogens
- Perform laboratory disease diagnosis, insect identification and nematode extractions.



# The Pinnaroo Village Green Project

Pinnaroo is a rural town in the Murray Mallee region of South Australia over 200km east of Adelaide. It has a hot and dry climate with a majority farming community and is home to turf production business The Turf Farm.

## Project Overview

The Pinnaroo Village Green Project is an exciting, 3 stage, 2-million-dollar rejuvenation project of the Pinnaroo central green area. This project, once completed, will be a huge boost to the local community, transforming an almost 92,000m2 unused, desert-like central area into a green haven of gorgeous landscapes, useful amenities and interactive areas.

The Daniel's family-owned business, The Turf Farm have been involved in stage 1 with the supply of around 1,500m2 of Eureka Kikuyu, which has already made a huge difference to the look and feel of the town.

"The Pinnaroo Village Green Project aims to help revitalise the central green area adjacent the main street of Pinnaroo. The redevelopment aims to create places for fun, culture, recreation, tourism, social connection and economic growth. This

will be achieved by adding or improving the amenities within the site as well as the functionality and layout of the area."

There is a huge focus in this project to re-green the previously dry and dusty area with the abundant use of instant lawn, trees and plants. Stage 1 has almost been completed and has already stunningly altered the look and feel of Pinnaroo's main street.

## People and Businesses Involved

This project has been a huge accomplishment and milestone for the Southern Mallee District Council. They were granted funding for the project but have also contributed a significant amount of time and money also. Jason Taylor, CEO, has been a huge part in securing the funding and has been a credit to the Mallee community since he took the position.

WAX Design have been involved in consultation sessions with steering committee and the community, including an engagement workshop at the local Primary School. They have created detailed designs and documentation for the stages and the final Masterplan.

Undertaking the landscaping for stage 1 is the South Australian commercial landscaping business LCS Landscapes. Southern Mallee District Council have formed a great relationship that they hope will continue in future projects.

## Step by Step Process

As part of the local community, The Turf Farm were excited to hear of a project so close to home and to be involved in the initial community consultation back in November 2019. The Turf Farm contributed their ideas and recommendations for the project, including a suggestion of a giant roll of turf for the 'Pinnaroo Big Thing.' With part of the plan to revitalise Pinnaroo being the addition of an animated 'big thing' tourist attraction.

"An animated structure that can capture not just what we produce in the Mallee, but what is the spirit of the Mallee," Deputy Mayor Paul Ireland said.

The Turf Farm provided recommendations, information and quotes to commercial

landscapers throughout the tendering stages before supplying the turf to the successful LCS Landscapes during stage 1 of the project.

## Turf Variety

The project has used Lawn Solutions Australia's Eureka Kikuyu throughout and started with 180m2 supplied from The Turf Farm on the 20th of October 2021. With an additional 310m2 supplied on the 26th of October.

On the 3rd of December, The Turf Farm owner and part-time truck driver Paul Daniel pulled their semi up on Pinnaroo main street with a further 680m2 of turf, followed by 370m2 on the 7th of December. Bringing the total turf supplied for stage 1 to 1,540m2 so far.

Stages 2 and 3 will start sometime this year with an estimated completion date of December 2022.

## The Turf Farm

It's not often you get to be involved in a project of this size, let alone in your own

community. The central area that divides Railway Terrace North and South in Pinnaroo has always been a dry and unloved piece of land, seemingly abandoned once the railway tracks were de-commissioned in 2015.

"We're proud that the council and LCS Landscapes have been supporting local businesses throughout the project and that our lawn has been used in the main street. We also get the additional benefit of seeing our lawn almost every day and have already noticed the huge impact it has had on the community." - The Turf Farm

The Turf Farm have had the pleasure of watching as travellers and locals alike enjoy the space and utilise the lawn areas for relaxation and fun.

"We're looking forward to the next couple of stages and can't wait to see the project completed at the end of the year."



# Bellvista Boulevard Project

## SUNSHINE COAST TRIALS SIR GRANGE ZOYSIA

Sunshine Coast Regional Council (SCRC) are responsible for the local government area in the Sunshine Coast District of South East Queensland.

Rob Tsikleas manages Parks Operations & Arboriculture including Parks and Gardens for SCRC. Rob and his team were seeking a low maintenance design outcome to create a defining border separating the cycle way and the pedestrian pathway at Bellvista Boulevard in Caloundra West. Residents of the area were keen for an outcome which contributed positively to the streetscape aesthetic.

Efforts in the area had been unsuccessful in the past with it being quite a hostile and narrow space. Previous attempts to improve the narrow space with mulch was usually only a short-term fix with the mulch tending to wash away or spill onto the pathways. Rob needed a permanent solution that wouldn't require frequent clean ups and ongoing rectifications.

### Daleys Turf and Sir Grange Zoysia

Daleys Turf is a beautiful family-owned turf farm located at Bells Creek who supply and install lawns and turf throughout South East Queensland. Daleys Turf contacted the SCRC and offered to conduct a trial of Sir Grange Zoysia in a situation where mowing was a problem for them, such as a roundabout. Sir Grange Zoysia is a fine leaf Zoysia Matrella that grows slowly, so it doesn't require frequent mowing like other grasses like couch and can even be left unmown if required.



The SCRC came back to Daleys Turf with two sites, one was in a new estate against a fence that was causing noise complaints when it was mown, the other was in a bio retention basin where grass plants were constantly being replaced. Both trials proved to be successful and demonstrated to the council that Sir Grange was very different to the existing varieties currently available.

### Bellvista Boulevard Project

The SCRC then contacted Daleys Turf regarding another problem area and wanted to investigate whether Sir Grange could handle this next site. Test holes were dug discovering that during the civil

construction two concrete areas (bikeway & footpath) road base was installed under the existing garden area. This was causing a drainage issue which was slowly killing all the plants in this strip garden. Daleys Turf informed council that to be successful the road base would need removing and then back filled with a sandy loam soil, adding organics and soil conditioners to allow a free draining profile.

The council granted Daleys a trial area of 400 lineal metres to complete. SCRC have a soil recycling program operating so were able to provide the 50 cubic metres of soil required for the trial.



Daleys Turf removed the existing garden soil to a mixing site, then removed the road base before spreading the mixed sandy loam to a depth of 500-600mm. The Sir Grange Zoysia turf was then laid on the prepared and levelled base.

The first 400m trial was installed in February 2021, by November the SCRC had decided to expand the trial as it had proven very successful for them. In December 2021 another 800 lineal metres was installed with a further 800m to go in 2022.

SCRC undertook all the initial irrigation required for establishment and during the ten months after Sir Grange was installed, it has only been mown once. No fertilisers or chemicals have been applied during this time. Now that it has been established, there are also no requirements for irrigation.

This was the first full project with Sir Grange Zoysia Daleys conducted with the council. Since this project, Daleys have installed other trial plots in high traffic areas in the many parks on the Sunshine Coast. The feedback from the SCRC in response to the performance of Sir Grange has been excellent. Daleys Turf will be investigating other areas to apply this low/no mow option in bio retention basins, roundabouts and any other difficult to mow areas that could prove beneficial for the council moving forwards.

Sir Grange Zoysia is a unique grass type but with time and understanding, Daleys Turf and SCRC have found the correct location for Sir Grange can be very successful.



# STRI Australia

Making great sport happen



STRI Australia plan, design and build places & spaces for the built environment, that provide the setting for human activity.

Our specialisms include over 30 years working within the sports industry, improving natural turf and synthetic sports and recreational surfaces, as well as designing and consulting on large scale stadia developments.

Through integrated thinking and a truly interdisciplinary, interconnected team of passionate experts we create prescriptive and sustainable solutions. Utilizing our custom designed **TurfSync Pro software**, the reports are provided in real-time, delivering immediate solutions and recommendations.

## SPORTS CONSULTANCY

We provide specialist consultancy services to ensure you have the right information and support to get the best out of your playing surfaces.

Our Consultancy services include:

- Feasibility studies
- Benchmarking audits
- Turf maintenance programs
- Sports field and golf course assessments

## DESIGN

Our in-house team has over 100 years of combined experience in sports surface design and redevelopment. Sustainability and innovation is always at the forefront of what we do and, where appropriate, we incorporate systems and technologies into the project and ensure an efficient, future-proofed solution.

Our design services include:

- Site assessments and investigation
- In-house design
- Drainage and irrigation solutions
- Document preparation

## RESEARCH

We are Australia's largest independent turfgrass research & product development consultancy within the market.

We provide:

- Rigorous scientific data for product evaluation.
- Testing of products to support compliance and product registration for turf market.

## LAB AND TESTING

Our technical team specializes in identifying, managing, and minimizing pathogens and pests in your sports turf whilst providing recommendations for alterations to things like blend ratios and design specifications.

## WHAT IS TURFSYNC PRO?

It is a bespoke online portal that assists with managing sports fields and recreational areas through its easy-to-use data collection platform.

## HOW CAN TURFSYNC PRO HELP YOU?

- Enables condition assessment using multiple criteria, highlighting the issues and trends.
- Determines potential usage capacity.
- Compares potential usage to actual usage to reveal the under/over/upt usage of the turf.
- Provides analysis-backed data to support decision-making around managing usage, allocating resources & planning capital works.

For more information, or to get our help in enhancing your natural or artificial sports surfaces/facilities, contact us at [info@striaustralia.com.au](mailto:info@striaustralia.com.au), call us on **+61 3 9558 6514** or visit [striaustralia.com.au](http://striaustralia.com.au)

