



## LIV-ing up to the hype

The Grange puts LIV Golf on world map

## Gathering place

Adelaide hosts AFL's  
inaugural Gather Round

## Forming The Furrows

Kingston Heath's new  
short course opens

## Accidental superintendent

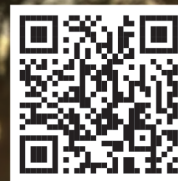
Darren Moore's  
remarkable journey in turf

# Welcome to Adelaide

2023 Australian Sports Turf Management Conference



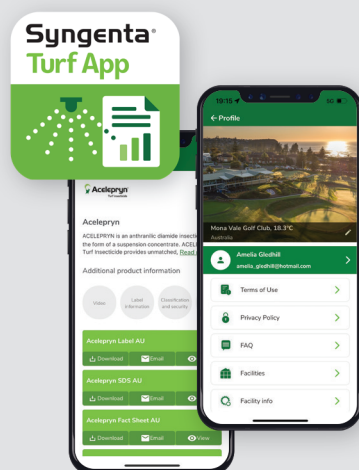
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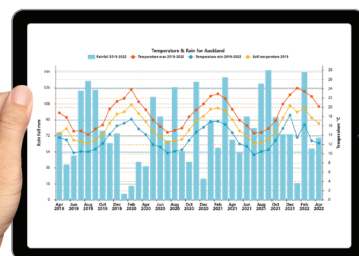
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**LEAD STORY**  
**GRANGE LIVS UP TO THE HYPE 8**

It was billed as LIV Golf’s coming of age and over three days in April at The Grange Golf Club it more than lived up to expectations. In excess of 77,000 golf fans crammed the Adelaide Sandbelt course to catch a glimpse of some of the world’s best golfers in action, among them home-grown hero Cameron Smith. ATM editor Brett Robinson catches up with The Grange superintendent Rowan Daymond to look back on a whirlwind event which had the whole golf world talking.

*Cover:* Royal Adelaide Golf Club’s par three 7th.  
*Photo:* Royal Adelaide GC/Gary Lisbon



PHOTO: GETTY IMAGES/ADELAIDE OVAL

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**Contributors to Australian Turfgrass Management Journal Volume 25.3 (May-June 2023):** Adelaide Oval SMA; ASTMA and Sportsfields and Grounds Graduate of the Year Award finalists; Shane Baker (CSTM, GCSAWA); Nathan Bennett (CSTM, Royal Adelaide GC/TMSA); Fraser Brown (CSTM, Lake Karingup CC); Rohan Clarke (Australian Golf Digest); Rebecca Cross (Turf Queensland); Rowan Daymond (The Grange GC); John Forrest (Forrest and Forrest Horticultural Consultancy Services); Ben Gibson (The Toolbox Team); Shane Greenhill (VGCSA); Leon Hennessy (NSWGCSA); Damian Hough (Adelaide Oval); LIV Golf Media; Bruce Macphree (AGCSATech); Paul McLean (CSTM, GCSAQ); Peter McMaugh AM (Turfgrass Scientific Services); Hayden Mead (Kingston Heath GC); Darren Moore (Stonehill, Thailand); John Neylan (Sporteng); Simon Snedden (ACTSTMA); Simone Staples (ASTMA); Ben Tilley (CSTM, Headland GC); Kate Torgersen (Environmental Golf Solutions); TSTMA Committee; Mark Unwin (ASTMA); Jenny Zadro (STA NSW/Turf NSW).

# Dynasties and doyens

**T**he AFL's father-son rule is one of the more unique mechanisms in sport and since its introduction back in the early 1950s has ensured generational talent has featured prominently throughout the game's history. It has produced some scintillating combinations over the years, among them the Abletts (Gary Snr and Gary Jnr), the Silvangis (Sergio and Stephen) and the Kennedys (John Snr, John Jnr and Josh) to name but a few. Currently it's the Daicos family name which is in the headlines, as former Collingwood hero Peter watches sons Josh and Nick take over his 'Macedonian Marvel' mantle.

The turf industry has had its fair share of father-son duos over the years as well. The Mitchells (Kevin Snr and Kevin Jnr) were synonymous with The Gabba in Brisbane for more than four decades, while going right back to the early days, the Morcoms – father Mick and son Vern – played a pioneering role in not only golf course maintenance but golf course architecture as well. Mick was head greenkeeper at Royal Melbourne from 1905 to 1937, while Vern had an even lengthier tenure at Kingston Heath from 1928 to 1967.

In more recent times you have had the likes of the Robinsons – ASTMA life member Doug and son Brent – while in Victoria you have the Freemans and the Reids. Lawrence Freeman was superintendent of Yarra Yarra Golf Club for nearly two decades, while son Michael has been at Huntingdale Golf Club for over 40 years, the past 23 as superintendent. Together they have contributed more than 65 years' service to the Australian turf industry which is a mighty achievement. As for the Reids, father Bill ruled the roost at Cobram-Barooga, while sons Gavin and Mark have continued the legacy, going on to forge successful careers in Asia and the USA. And we can't forget the Kiwis of course – the likes of the Spraggs and the Bradleys – who have flown the superintendent flag on both sides of the Ditch.

All the above, however, can't quite lay claim to the unique achievement one father-son turf duo can. In late May came the news that Dan Gilligan, course superintendent at Tasmania Golf Club on the outskirts of Hobart, was retiring. In doing so, it ends one of the more remarkable tenures, with the Gilligan name having been an integral part of the club's fabric for half a century.

Tasmania Golf Club opened in 1971, with Ian Grimsey the superintendent. Leaving to take on the Royal Canberra role, Grimsey approached childhood friend Edward 'Ted' Gilligan to take over at Tasmania. Although unsure whether he had the requisite experience, Grimsey assured Ted that his volunteering days at their local golf course in the Huon Valley, not to mention a solid farming background, would more than suffice. Ted dutifully took on the role in 1973 and for 15 years was head greenkeeper. Upon his retirement in 1988, the baton was handed down to son Dan who had taken on an apprenticeship under his father at the age of 17. Dan was literally chucked in the deep end, with the club hosting a large state tournament shortly after he assumed the top role.

In the near 35 years since, Dan has steadfastly battled away with a very modest budget and small crew to establish Tasmania as one of the state's most treasured layouts. He has done so on the back of a resolute work ethic instilled by his father who sadly passed away at the age of 89 in early 2019. Unfortunately for Dan some untimely health issues recently hastened his decision to call time, but he will be able to look back with immense pride on the role two generations of his family has played in the club's development and the Tasmanian turf industry as a whole.

While we are on the topic of dynasties (and doyens), as this edition was being put to bed news came through that Peter McMaugh AM had been bestowed the Australian Medal of Agricultural Science. Conferred by the Ag Institute of Australia (AIA), it is the organisation's highest honour and recognises an individual for their outstanding contributions to the advancement of agriculture and natural resource management. The award was first struck back in 1948 and Peter, who won the organisation's Fellowship Award in 2004, takes his rightful place alongside a veritable who's who of Australian agriculture industry pioneers.

The announcement was made at the AIA's AGM in mid-May, with Peter bestowed the award at Sydney's Barker College on 1 June. According to the AIA Awards committee, it received glowing recommendations supporting Peter's nomination and they were suitably impressed by his breadth of contributions to the advancement of the turf industry in Australia and internationally.

It is yet another immensely-deserved accolade for Peter, who started his turf career back in 1964, and sits nicely alongside the Member of the Order of Australia (AM) medal he received in 2019 for services to the Australian turfgrass industry. ATM salutes you Peter and raises a glass of fine Barossa shiraz to your latest achievement and to your good health. Enjoy the read...



**Brett Robinson, Editor**





# All roads lead to Adelaide for annual sports turf conference

**T**he start of the year has been a very busy one for the team at the Australian Sports Turf Managers Association (ASTMA), with a number of initiatives and programs delivered and, of course, preparing for the 2023 Australian Sports Turf Management Conference and Trade Exhibition at the Adelaide Convention Centre from 19-22 June.

With the conference now on our doorstep, preparations have ramped up significantly in recent weeks. Delegate attendance at this stage is tracking above forecast which is always pleasing and we are on track to break the attendance record again. Complementing that, the trade exhibition completely sold out some six months ahead of the event, again setting a record for exhibition attendance.

As covered later in this issue of Australian Turfgrass Management Journal (*from page 36*), the line-up of speakers and topics at this year's conference is compelling, with particular interest in seminars from weed management expert **Dr Jim Brosnan** and former St Andrews Links superintendent **Gordon Moir**. Turf pathology expert **Dr Nathan Walker** will also talk on IPM and strategies for improving disease control, while registrations for both the ERI and *Poa annua* workshops have already reached capacity.

Complementing these sessions, the ASTMA team has put together a compelling line-up of local and international speakers who will deliver education sessions across topics such as environmental stewardship, managing the impacts and recovery of flood events and research on sportfield rolling, overseeding and turf tolerance. All up, this year's conference will contain over 120 hours of education across the Plenary, Sportsfield, Golf Course Management, Agronomy and Leadership streams. In addition to the ERI and *Poa* workshops, there will also be particular focus on staff attraction and retention, with several dedicated workshops and seminars on the topic from turf managers and industry experts.

While developing and working through the many requirements of putting together the conference, hot on the heels of delivering the third Women in Turf Strategy Work placement opportunity at The Athena tournament in early March, the ASTMA recently announced a fourth placement opportunity. This will see the successful applicants supporting those teams preparing playing surfaces for the upcoming FIFA Women's World Cup to be co-hosted by Australia and New Zealand. Ten venues – six in Australia and four in New Zealand – will host the 32-team, 64-match tournament from 20 July to 20 August in what is set to provide incredible international exposure for Australasian sports turf managers.



Australian  
Sports Turf Managers  
Association

## FIRST GREEN DOWN UNDER

In early May, the ASTMA announced that it was bringing the First Green Program to Australia, in partnership with the Golf Course Superintendents Association of America (GCSAA). First Green is an innovative educational program that uses golf courses as STEM (science, technology, engineering and maths) learning facilities and excursions for school students.

The First Green program is an outstanding way for clubs to engage with and educate students and their local communities on the range of environmental benefits that golf courses provide. It is designed to provide a range of learning experiences for students, including field trips to golf courses where they can participate in activities such as testing water quality, biodiversity and sustainability practices, identifying plant species and learning about soil composition. Students also have the opportunity to meet with golf course superintendents and learn about the skills, knowledge and education required to manage a golf course.

The program has been deployed at over 100 golf courses across North America and to date has reached over 21,000 students. Superintendents who have been involved with

the program have lauded it as a great way to engage and educate high school students on careers in sports turf management. This has led directly into casual, seasonal or full-time positions, as well as numerous students making a move into studying turf management as a career.

I believe the First Green program will provide Australian clubs and turf managers with a well-established program that can assist greatly in supporting career and industry awareness opportunities and also assist in increasing the number of potential apprentices coming into the industry across the country. As a team, the ASTMA is looking forward to rolling out the program in detail at the upcoming conference, with First Green excursions and learning opportunities at golf courses beginning shortly after. The ASTMA will be working closely with the GCSAA to adapt the program for Australian schools, golf courses and sporting facilities.

## STATE PRESIDENTS MEETING

Late May also saw the ASTMA Board get together with all state association presidents to discuss these (and several other) programs to be launched over the next 12 months and ensure input and a shared understanding of state and national priorities for the year ahead. Foremost among the items workshopped was state association input into the development of the ASTMA Strategic Plan which will cover the period of 2023 to 2027.

A critical element to national and state activities, the association's Strategic Plan sets out our shared vision for the future and directs the purpose and priorities for the association. With our previous Strategic Plan running from 2019-2023, the ASTMA Board and state presidents discussions in May set a range of priorities and actions for the association team to work through over the next 3-5 years as we set shared activities and values to achieve through that period to move the industry forward. The ASTMA Board will be sharing the revised Strategic Plan during the Adelaide conference and we will be communicating it more broadly to members and the industry shortly afterward.

Finally, the 2023 ASTMA Annual General Meeting will be held at 5pm on Wednesday 21 June at the Adelaide Convention Centre during the conference. A copy of the 2023 AGM Notice of Meeting and all supporting documentation, including minutes of the 2022 AGM, are available for members through the 'AGM and Annual Reports' section under the 'About Us' tab on the ASTMA website.

For those making the journey to Adelaide, I hope you have an enjoyable and productive conference week and I look forward to seeing you there. 🇺🇸



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# Best on ground

*ATM showcases some of the best social media posts and pictures from around the turf industry in recent months.*

**f** MATTHEW OLIVER (CSTM)

**"Magic Round ✓"** (Eight games in three days with a 15mm tropical downpour in just seven minutes before and during the seventh game... all in a weekend's work! It was a busy NRL Magic Round for the Suncorp Stadium crew of Ben Engels, Rob Saxby, Michael Gilman, Tim Pfingst, Adrian Onvlee and ground manager Matthew Oliver, but they delivered. Absent from the photo is game-day casual Shane Biddle.)



**in** KYM TATTERSALL

**"We are fortunate to work with the great people at the Office of Australian War Graves who preserve and maintain Australian war cemeteries. Today the team spent the day cleaning and polishing commemorations in the lead up to ANZAC Day as part of our civil grave maintenance contract."** (Turf maintenance isn't just golf courses, sportsfields and bowling greens... Lest we forget.)





**in** KEEGAN POWELL (CSTM)

**f** THOMAS SMITH (CSTM)

**"Aussie superintendents lucky enough to work at the LIV event at Sentosa this week. Course is immaculate."** (Paul McLean, Keegan Powell, Tom Smith, Nathan Arnett and Marcus Hartup were part of a unique volunteer program which saw them join the crew at Sentosa Golf Club for the LIV Golf Singapore event in late April.)

**in** TIM ELLIGATE

**"The last six weeks has been massive for the crew at Anco Turf with around 110,000 sqm of kikuyu turf supplied and laid at Caulfield Racecourse."** (Works on Caulfield's Course Proper and new Heath Track progress nicely.)

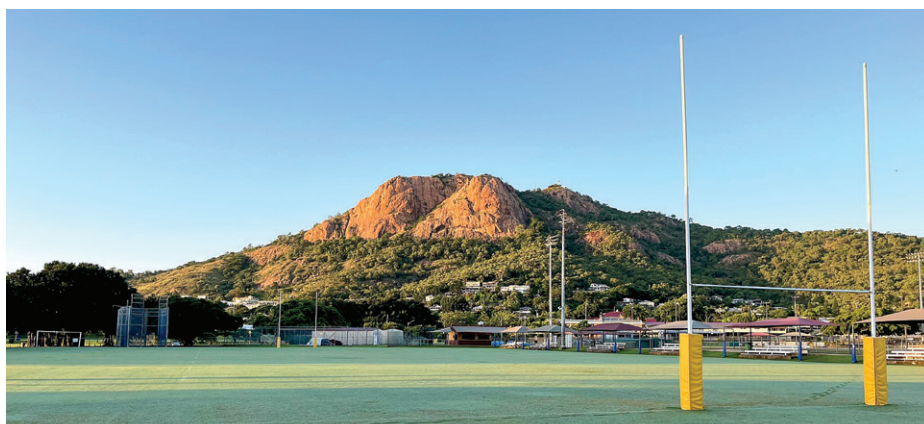


**f** GOLF NSW


**"In appreciation to the amazing greens staff at Tuncurry Golf Club for all their hard work in preparing the course and getting it back in play after heavy rain yesterday. They have worked countless hours and their efforts haven't gone unnoticed."** (Tuncurry superintendent Mark Spraggs, centre, and his crew had to contend with 339mm of rain in two weeks, including 129mm the week of the NSW Women's Open.)

**in** TIM HOSKINSON (CSTM)

**"Field 2 at the Townsville Sports Reserve looking a picture beneath Castle Hill in the background. Awesome work Brett Barsby and team."** (Newly appointed Green Options North Queensland manager Tim Hoskinson out and about early checking the grounds.)







# Grange LIVs up to the hype

*It was billed as LIV Golf's coming of age and over three days at The Grange Golf Club in April it more than lived up to expectations. ATM editor Brett Robinson catches up with course superintendent Rowan Daymond to look back on a whirlwind week which had the whole golf world talking.*

It had been a big week. In fact, it had been a big five months and as the final round of the inaugural LIV Golf Adelaide event was in progress, The Grange Golf Club superintendent Rowan Daymond was taking some well-deserved time out. Seated inside The Cellar Door, one of the many corporate marquees surrounding the now-famous 'Watering Hole' from tee to green, Daymond was enjoying some lunch and watching the groups come through.

Up to that point, midway through the final round, the LIV Down Under spectacle had

already garnered the attention of the golfing world. Over the three days (21-23 April), more than 77,000 fans had streamed through The Grange gates in scenes that Australian golf hasn't witnessed since more than 109,000 flocked to Kingston Heath to catch a glimpse of Tiger Woods across four days of the 2009 Australian Masters.

The 'Watering Hole' – the 161-metre par three 12th on The Grange's West Course – had been transformed into an amphitheatre for the tournament and its party-like atmosphere made it the place to be all week. During

Saturday's second round, Englishman Paul Casey came agonisingly close to acing it which would have sent the well-lubricated throngs into utter rapture. As LIV Golf commissioner Greg Norman had prophesied earlier that week, the Adelaide event was going to showcase the "true LIV Golf product" to the world and what would happen next would provide the league its perfect PR moment.

In scenes that would be beamed around the golfing world and replayed millions of times across social media, Chase Koepka hit a 9-iron to within eight feet and then listened





*The Grange Golf Club in Adelaide played host to the inaugural LIV Golf event in Australia from 21-23 April. The tournament layout essentially comprised the back nine East and back nine West holes. Pictured is tournament 3 (12 East)*

PHOTOS: BRETT ROBINSON/LIV GOLF MEDIA

to the growing roars of the crowd as it tracked towards the cup. Watching from his prime position behind the green, Daymond saw it pitch, roll and drop. Smiling, he put down his lunch and went to work.

As the cheering crowds showered The Grange turf with beer cups and cans, Daymond made his way down to the green and joined fellow crew members and an army of volunteers to help with the clean-up and repair any damage to the green. Ten minutes later, and with the crowd still abuzz, play resumed and some semblance of normality – well, for a LIV event anyway – returned.

"They couldn't have scripted things any better," reflects Daymond, who has been Grange superintendent since 2017. "The event was a massive success but that hole-in-one, on that hole, was just the icing on the cake."

## PREPARING FOR THE ONSLAUGHT

When American Talor Gooch later that day holed out on the 18th to claim the LIV Golf Adelaide title and with it the mind-boggling \$4 million first prize cheque, it signalled the end of a whirlwind five months for Daymond, his crew and the entire Grange club. It was back in mid-November when Norman announced that he would be bringing the Saudi-backed breakaway league and its bevy of international stars to Australian shores for the first time. It was somewhat poignant that The Grange was to be host, given it was where Norman had secured his first win as a professional at the 1976 West Lakes Classic.

LIV Golf officials had first visited The Grange in August to scout it out as a potential venue, one of about 12 courses they had on their hit list. Buoyed by those initial

discussions, things went quiet for a while as rumours started to circulate that courses in Sydney or Queensland were also in the mix. It wasn't until Grange general manager Barry Linke called LIV chief events officer Ron Cross to get an update that it was discovered LIV was already in discussions with the South Australian Government. Sure enough, five weeks later the club was beginning the countdown for the arrival of something unique.

With a date locked in, it kick-started a flurry of on-course activity and planning. The timing of the tournament couldn't have been better and would allow Daymond a full growing season to get the Penn A1 and A4 bentgrass greens and Santa Ana couchgrass areas in prime nick for the tournament. The heat of Adelaide's summer would have passed and growth would be manageable.





Rowan Daymond and LIV Golf CEO and commissioner Greg Norman share a moment during the first round

A month before the tournament's announcement, Daymond and the crew had completed their usual course renovations. Greens were cored and topdressed, while all the couch surfaces were scarified. Once it was announced, the initial focus was to take stock of where the course was at and immediately remedy those areas which hadn't fully come back from the rigours of winter to allow them enough time to recover before the tournament. Then it was all about putting programs in place, setting targets, nursing the course through the summer and hoping Mother Nature would give them a helping hand along the way.

As part of that tournament planning, Daymond was involved in devising a tournament routing. With 36 holes at their disposal (The Grange boasts both the East and West courses), LIV officials approached the club and gave it licence to come up with what it thought would be the best layout for the event, taking into consideration all the 'après golf' activities and on-site car parking



The Grange senior greenkeeper Mal Grundy leads the fairway crew down tournament 7 ahead of the opening round. The Santa Ana couchgrass fairways were cut at 8mm from green to tee

requirements. Most recently, the West Course had hosted the 2016 and 2019 Women's Australian Open tournaments, while the East course had hosted the 2014 Australian Amateur Championship in tandem with the West. The East had also been used for Women's Open qualifying events in previous years, so both were well equipped to cater for tournament-level golf.

Daymond, together with club's golf operations manager Simon Andrew, would come up with a number of different options. The routing eventually decided upon was a composite, with the back nines of both East and West courses being chosen – the back nine East playing as the tournament front nine and back nine West the tournament back nine. That was tweaked slightly in the lead-up, with 11 East being replaced by 9 East in order to make spectator movement between the opening three tournament holes easier. Usually a dogleg par five, 9 East was shorted to a par four for the tournament, with the players hitting off from the ladies' tee. The 11 East fairway

became a fan area instead, while the green was used as one of the practice putters due to its location adjacent to the tournament 1st tee.

"It was quite an interesting process," explains Daymond on coming up with a routing. "Given we were going to be hosting some of the biggest hitters and best golfers in the world, initially it was all about finding a course that had a bit of length to it. As it turned out, there are actually six or seven good routes that you could take around both courses. Most of the ones we came up with were over 7000 yards, but with some of them it became difficult logistically to get players from hole to hole.

"The back nines on both courses are arguably the best set of holes and the back nine East is often thought of as the strongest on the property. The routing ended up being about 6950 yards, which is one of the shortest LIV has played on, but at the end of the day it was all about the spectacle. They wanted to see the big hitters doing their thing, with the challenge coming in and around the green complexes and the variety of shots they needed to play off the tight lies."

## COURSE FOCUS

Outside of the significant infrastructure build (more on that below), there were a number of things that Daymond had at the top of his priority list in the months leading up to the tournament – turf conditioning, bunkers and the out-of-play areas.

With huge crowds expected, a significant amount of work was required in the out-of-play areas to ensure they were not only tidy but safe. Weed management through that part of the year was a challenge identified early on, while a number of trees through the spectator thoroughfares needed to be lifted and cleaned up. The Grange's biodiversity manager Jessica Abercrombie oversaw these works and was assisted by other senior members of staff.



Cameron Smith dropped by the sheds to meet The Grange tournament crew after his Pro-Am round on Thursday



The couchgrass roughs too came in for particular attention. With the course playing shorter compared to other LIV venues (most are between 7200 and 7400 yards), the club decided to beef up its defences by promoting the roughs, not the most popular decision among the members. Significant areas were roped off to keep traffic off them, while extra fertiliser went out to help thicken them up. Due to issues with irrigation spacings, the West Course roughs required more attention than the East tournament holes, with impact sprinklers placed in a number of areas to ensure all areas grew in.

Although nicely placed about a week out and being cut at 70mm, LIV organisers asked Daymond to thin the roughs a little, in particular around the landing zones. It wasn't so much the height but the thickness that had them a little worried, so the crew went out with vertimowers and snippers to reduce the intermediate areas.

The Grange's large bunkers were also given a pre-tournament makeover. Cameron Semple, a former colleague of Daymond's from his earlier years at Kooyonga Golf Club, had joined the crew and he spent the best part of two months working on the tournament hole bunkers, rebuilding tongues and walls where required, removing tree roots and replenishing them with fresh sand.

A large area behind 12 West was mined out, with about 280 tonnes of sand excavated and placed in the tournament bunkers. That work certainly paid off, with English professional Ian Poulter lauding their condition to his more than 600,000 Instagram followers, posting "Now these are the best bunkers in the world. Why can't other countries copy this? Perfection."

From a turf conditioning perspective, Daymond was very mindful of nutrition levels, ensuring that the playing surfaces were as healthy as possible to get through the summer and be in a strong position to then start working them more as the tournament approached.



*Chase Koepka set the huge galleries around the 'Watering Hole' alight with a hole-in-one during the final round*

"Normally we'd be using a lot of granular products through summer to help maintain their health, but this season we tended to go with more foliar applications on the greens," explains Daymond. "We wanted to have a bit more control over their growth. They were a little bit leaner because of that and we had a little bit of disease pressure as a result, but they were fine. Growth regulation was really important for us. Even though the tournament was in April, we really didn't want to allow the greens to jump out of that regulation that we had been keeping them under, just in case things got out of control a little bit."

"On the couch areas we probably went the other way with the nutrition. Where we normally do foliar applications and keep the couch pretty lean, we probably did 2-3 granular applications instead to allow them to develop a bit more leaf. It's not how we normally run them and you could certainly see the increased density."

Like Victoria and Kingston Heath had instituted in the lead-up to last year's Australian Open, The Grange also scheduled a series of

hole closures to assist with getting the course tournament ready. A total of 19 full and partial closures gave Daymond and the crew some much-needed time and freedom to undertake key cultural practices, in particular spraying.

"They were really beneficial," states Daymond. "We have a lot of members and push through a lot of rounds. Due to that high traffic, it can be hard to get applications done without there being some form of disruption. The weather was pretty good from after Christmas to mid-March so we had a lot of time to get our spray programs in place. We had a few issues late with some rain and wind which disrupted our schedules, but we were able to sneak them in and get our final applications done in time for the tournament."

"We got through the summer really well and the weather played a big part in that. We had a lot of rain up until Christmas, which is very rare for us, and we didn't have that many hot spells. We nursed the course through as best we could and were mindful with the tournament holes of managing the traffic on them. We didn't want to have the place on

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edge too early and then get to a stage when all of a sudden growth drops off and you can't do anything. It was probably a month out when we started to intensify our programs and started to dial them in for the tournament."

## BIG BUILD

While the turf and course side of things ran relatively smoothly, one of the more challenging aspects in the lead-up was the infrastructure build. With LIV's catchcry of 'Golf, but louder', it was a tournament build the likes of which Daymond hadn't witnessed before and in a vastly different league to the previous Women's Opens held there. In addition to the large black cloth-wrapped television towers and speaker stacks stationed around all tees and greens which blared music non-stop, huge



*Grange foreman Lachie Starr (left) and senior greenkeeper Susana Oliveira (above) setting up tournament 12*

corporate marquees and spectator viewing platforms flanked greens and tees throughout the course.

None more impressive was the set up around the 'Watering Hole' which on its own required the hole to be out of play for a full six weeks before the tournament. The large double-storey marquee behind the 18th green – dubbed 'Club 54' – was one of the last facilities to go up after it was shipped across from Melbourne where it had been used for the Formula 1 Grand Prix. A 50-tonne crane had to be parked in the middle of the tee on 1 West in order to erect it. Pretty much the entire 1 West fairway was transformed into a massive Fan Village, with a stage constructed at one end that would host the likes of Birds of Tokyo and Australian DJ Fisher who entertained the crowds after the golf had concluded each day.

Initially, Daymond had senior greenkeeper Susana Oliveira overseeing the contractors coming on site for the build, but due to the sheer volume of traffic and personnel, assistant superintendent Jeff Gillies was seconded to help out as well. Both Gillies and Daymond had earlier visited Royal Melbourne Golf Club

where they were able to get some insight from director of courses Richard Forsyth about his experiences hosting the Presidents Cup and some of the key lessons learnt from going through a major infrastructure build.

"The build was next level and something I hadn't seen before," states Daymond. "The build started late which caused a few headaches. They had a start date, which I thought was already late, but then that got held off for another two weeks. The amount of infrastructure around the 12th was huge and the fan village area was effectively a whole par five worth of infrastructure set up as well.

"There was a lot of work going on and the members certainly endured the disruption well. At times they were playing 16-hole courses on both the East and West, while some of the fan activation zones caused holes to be shortened. With the 'Watering Hole' closed for six weeks, we brought the spare hole on the West into play. About three weeks out, the clubhouse car park was taken out of play completely to set up the tournament offices and media facilities, with members having to park on 1 and 2 East. Logistically there was a lot going on."

## STEPPING UP

All while this was going on, Daymond was also mindful of gearing his crew up for the tournament, which for many would be their first experience of such an event. Like many other clubs around Australia in recent times, The Grange had not been immune to staff turnover and finding it difficult to replace them.

From a low of 22 at one point, over a period of four months prior to the LIV tournament announcement, Daymond boosted his staff numbers to 32, with many of those coming from other industries. Despite their relative inexperience, Daymond could call upon some wise heads in the form of Gillies, foreman Lachie Starr and senior greenkeepers Oliveira, Mal Grundy, Colin Coleman and Nick Hall to help guide the new recruits.



*Swedish seasonal greenkeeper Robin Henriksson navigates his way around a bunker while cutting the 7th fairway*





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## AN AUDIENCE WITH CAM SMITH AND THE SHARK

There were many highlights during the LIV Golf Adelaide event, but there were a couple of moments that will long reside in the memory banks for both superintendent Rowan Daymond and The Grange Golf Club tournament crew. Yes, Chase Koepka's hole-in-one on Sunday and watching more than 77,000 fans cram the course to watch some of the world's best golfers in action were hard to beat, but there were a couple of other special encounters that would leave a lasting impression.

Earlier in the week Daymond had attended the official tournament launch at Adelaide Oval. As everyone piled out of the function room to watch a light display on the hallowed oval, Daymond found himself, by chance, standing next to Australian golf's man of the moment Cameron Smith. They got chatting for about 10-15 minutes at the end of which Daymond asked the Ripper GC team captain whether he could pop down to the sheds after his Pro-Am round on Thursday to meet the crew.

Smith, who was swamped wherever he went throughout the week, was more than obliging and after his Pro-Am round was collected from the clubhouse by Grange assistant Jeff Gillies. It took them about 45 minutes to drive the 400m from the clubhouse to the maintenance facility, with Smith being stopped multiple times by fans. At one point Gillies was told to drive and not stop! Eventually arriving at the sheds, Smith would spend a good 20 minutes talking to the crew, signing autographs and posing for photos. Ironically, Daymond missed the whole thing as he was still out playing in the Pro-Am where he was partnered with LIV golfers Louis Oosthuizen and David Puig.

As a funny aside, a number of crew were on the tee when Daymond hit his first tee shot and to their disappointment the boss smoked his drive. What they didn't see, however, was a few holes later when one of his drives found the Santa Ana rough. Promoting the roughs before the tournament had been one of the more contentious aspects of their preparations and it wasn't very popular among the members. Daymond's predicament of finding his drive nestled down in the thick couchgrass wasn't lost on one female Grange member who was quick to call out to Daymond, 'Now you'll see what we've had to deal with!'

### SHARK SIGHTINGS

Following completion of their course preps for the opening round, the majority of The Grange crew, Daymond included, made a beeline towards the 'Watering Hole' (the 12th) to catch some of the action. Shortly before Smith played it alongside fellow team captains Brooks Koepka and Ian Poulter, LIV Golf commissioner Greg Norman made a special



appearance which drew huge roars from the galleries. After signing caps and balls for the crowd, Norman beckoned The Grange crew over for an impromptu photo on the approach to the green. He then spent a further 10-15 minutes talking with Daymond and the crew, signing autographs and posing for photos.

The personal highlight for Daymond, however, came on Saturday when, out of the blue, he received a phone call from Norman's security team saying that he wanted to see him. For about 10-15 minutes, the two talked about the course and how exciting it was having so many people there for the event.

"He was so appreciative of the condition of the course and the effort that everyone had put in to get it to that level," says Daymond. "He knows the amount of work that goes into presenting a course for these sorts of events, so it was nice to hear that appreciation from someone so big in the game."

*Pictured clockwise from top: The Grange crew with LIV Golf commissioner Greg Norman on the 12th; Grange senior greenkeeper Susana Oliveira and volunteer Ross Robertson (Coomealla GC) get Norman's autograph; Senior greenkeeper Mal Grundy soaks in the 'Watering Hole' atmosphere; and Grange groundsman Brad Round picks the Shark's brain*



"We came into the tournament with a group of staff that hadn't had a great deal of tournament experience but were all well skilled at the job and keen to have a crack," explains Daymond. "We had a lot of staff meetings and discussions in the lead-up to the event about what to expect. Most hadn't experienced an event like this before and even though I had, they were certainly nothing of this magnitude. It was just about sitting everyone down and explaining the amount of work that needed to be done and the timeframes we needed to work to in order to get everything ready for tournament week.

"They are a great bunch and worked really hard in those months beforehand to get to where we needed to be. They put in the extra hours so we could meet all our targets. They bought into that process and the systems we put in place worked well."

As soon as the tournament was announced, the club put out the call for tournament volunteers and had little trouble filling the roster. A total of 25 volunteers, 18 of them from interstate, bolstered The Grange team for the week, taking the total tournament crew to 57 (58 if you include course administration assistant Rebecca Bott who played a significant role behind the scenes getting everything organised).



*Brisbane Golf Club volunteer Harry Macoun cuts the 6th green surround. He and fellow Brisbane crew member Justin Wells spent a whole month on placement at The Grange in the lead-up to the tournament*

Among the volunteers were superintendents Rob Biddle (Avondale GC, NSW), Dean Lewis (Thurgoona CC, NSW) and Jordan Sherratt (South Lakes GC, SA). Biddle brought with him fellow Avondale staff Ned Waddington and Henry Bear for the week, while Rich River Golf Club duo Rueben Stranger and Ethan Redwood made the journey from up on the Murray. Through

an arrangement with Brisbane Golf Club superintendent David Mason, Harry Macoun and Justin Wells joined Daymond's crew a month out from the tournament and worked through until its conclusion. Also coming from afar was Yamba Golf and Country Club's Maddison Mason who was part of the ASTMA's Women in Turf Strategy work placement at The Athena tournament in March.

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## PUTTING LIV ON THE MAP

While seemingly having every base covered in terms of tournament staff, LIV Golf doesn't have a dedicated agronomy department. Aside from liaising with the tournament director who set pin placements for each round, course presentation and preparation for the event was left in the very capable hands of Daymond and his crew. The only directive that LIV presented to Daymond was to "prepare Grange in the way that Grange best presents for a tournament". In other words, a Sandbelt feel with firm and fast greens.

For the tournament, greens were cut at 2.8mm, with a single cut in rounds one and three and a double cut in round two easily achieving green speeds of between 12.5 to 13. The Santa Ana couchgrass fairways were cut green to tee at 8mm, while the tees and surrounds were hand cut at 6mm, the tees receiving a double cut. Daymond says that while the speeds were there, greens firmness wasn't quite where he would have liked them early on and will be something he'll be targeting more when LIV returns at a yet-to-be-confirmed date in 2024.

"The course came up really well and it certainly popped on the TV coverage," says Daymond. "I think we were about 95 per cent there with the turf surfaces. Next year we just need to focus a little bit more on those 'one percenters'. With tournaments of this magnitude there are so many things that happen on a day-to-day basis, some of which you don't expect. We are certainly going to be better situated next year and know what we need to be on top of."



*Grange groundsman Lachy Couzner half way through double cutting the 15th ahead of the second round*

LIV promised a far different product and it certainly delivered on that front. It was quite the visual and aural spectacle, with the party-like atmosphere making for something Australian golf fans had not really witnessed before but lapped up with gusto. While not everyone's cup of tea, few could argue that the spotlight LIV Golf threw on The Grange, Adelaide and Australian golf was immense and certainly won over a legion of new fans, Daymond included.

"I loved it," sums up Daymond. "The shackles were definitely off – there was music everywhere, chants going up as players were taking shots and it was a much younger crowd. I love normal golf and love watching it, but to see that sort of atmosphere and people having that amount of fun was just great."

"I hadn't felt nervous or overly stressed about anything to do with the tournament in the months after it was announced, but the minute they opened the gates on the Friday morning and all the spectators started flooding in, I started to get a few butterflies. I didn't really comprehend how many people were going to be here and what that would look like out on the course. It was certainly something I've never experienced before, but seeing everyone out on the course and enjoying themselves was pretty cool."

"We always knew it was going to be big if LIV came to Australia and for it to be here at The Grange was phenomenal. To be the club that put LIV on the map a little, I couldn't be prouder actually."

## BY THE NUMBERS – LIV GOLF ADELAIDE 2023

**1:** Number of hole-in-ones – Chase Koepka, 9-iron, Round 3, 12th hole.

**2.8:** Greens height of cut (mm) – all hand cut. Penn A1 bentgrass on the West Course greens and Penn A4 on the East Course.

**3:** Number of staff from Avondale Golf Club (Sydney) who came across to volunteer for the week – superintendent Rob Biddle, Ned Waddington and Henry Bear.

**6:** Number of weeks the 'Watering Hole' (12 West) was out of play in order to set up corporate marquees and viewing platforms.

**6:** Tees and surrounds height of cut (mm) – all hand cut – and number of staff on the approaches and surrounds mowing crew.

**7:** Number of staff on greens mowing crew.

**8:** Fairway cutting height (mm) and number of staff on fairway mowing crew.

**12.5-13:** Green speeds for the tournament.

**15:** Tournament bunker crew – comprising three teams of five.

**19:** Number of full and partial course closures (tournament holes only) in the lead-up to the LIV event to assist with course preparations.



*Grange senior greenkeeper Colin Coleman cuts the 10th green ahead of the second round*

**47:** Strokes under par by winning team 4Aces GC (Johnson, Reed, Perez and Uihlein).

**58:** Total tournament crew – 32 on-course Grange staff headed by Rowan Daymond (superintendent), Jeff Gillies (assistant), Lachie Starr (foreman), senior greenkeepers Mal Grundy, Susana Oliveira, Colin Coleman and Nick Hall, biodiversity manager Jessica Abercrombie and head turf technician Tom D'Arcy; one course admin assistant (Rebecca Bott) and 25 volunteers (including 18 from interstate).

**62, 62 and 73:** Winner Talor Gooch's three rounds (19-under total). His consecutive 62s (10-under), broke the record for best round related to par in LIV Golf history.

**6,946:** Yardage of The Grange's composite tournament course.

**23,390:** Units of LIV Golf and team merchandise sold.

**77,076:** Official LIV Golf Adelaide attendance.

**116,978:** Number of 12-ounce beers sold.

**55,000,000:** Number of video views on social media across LIV league channels.



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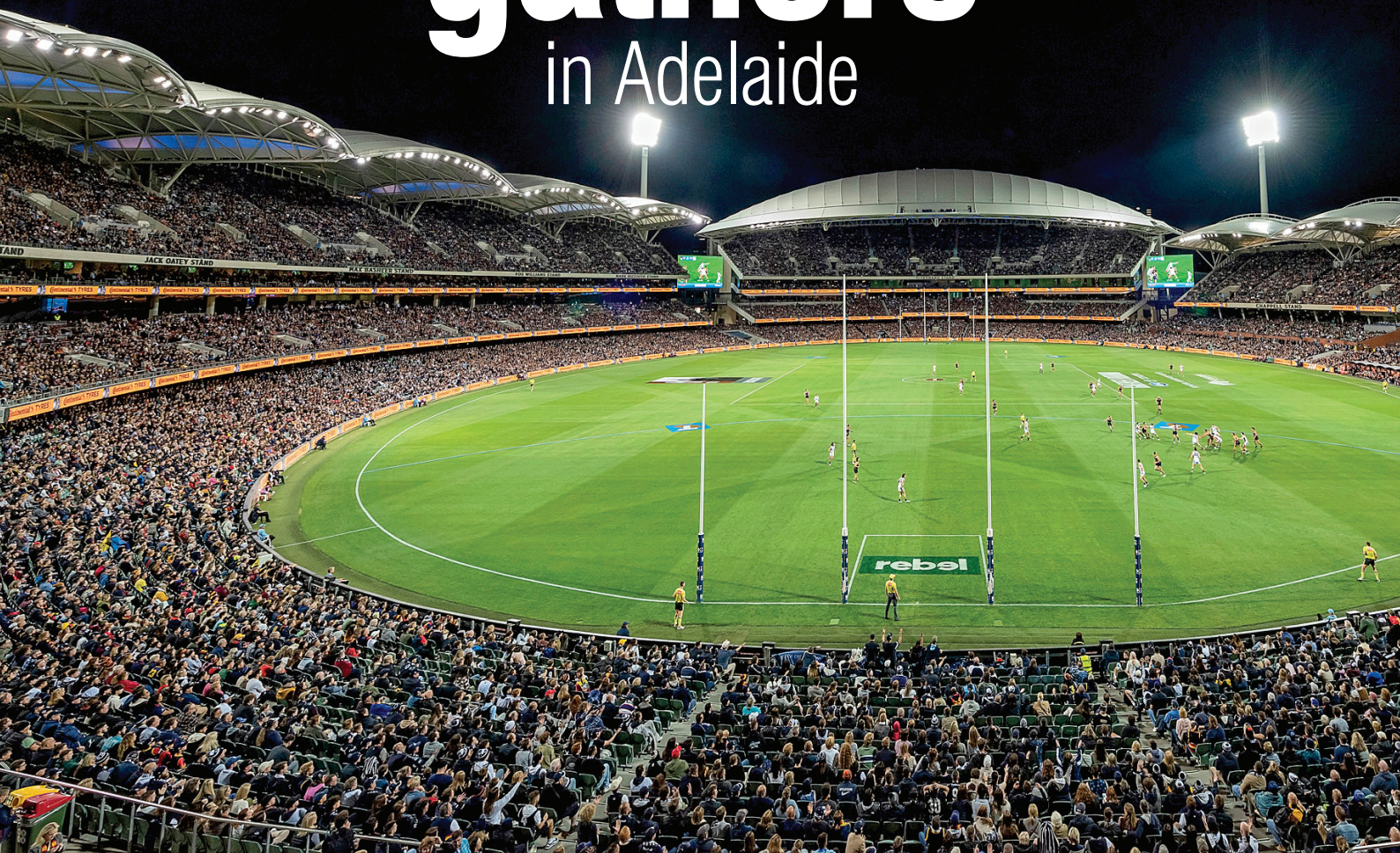
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# AFL gathers in Adelaide



Adelaide has become quite the focal point for major sporting events in recent months and in addition to LIV Golf coming to The Grange Golf Club in April, the week prior the AFL's inaugural Gather Round also transfixed the South Australian capital. Last November the AFL announced it would be adding an extra round to the 2023 Premiership season, with all 18 teams converging on Adelaide for a festival of football, similar to the NRL's Magic Round. While the NRL hosts all its games at the one venue (Suncorp Stadium), Gather Round would be played across three venues – Adelaide Oval (six games), Norwood (two) and Mt Barker (one).

In what would prove a huge success for the AFL, a total of 220,000 footy fans embraced the nine sold-out games across the four-day round. Some 60,000 tickets were purchased by fans who travelled from

*ATM editor Brett Robinson catches up with Adelaide Oval head curator Damian Hough to look back on the AFL's inaugural Gather Round held in mid-April.*

interstate, with accommodation and hospitality venues doing a roaring trade. Such was its success, the AFL announced midway through the weekend that it had locked in Adelaide to host Gather Round for the next three years.

From a grounds perspective, the three Adelaide venues stood tall and even an inch of rain across Friday and Saturday didn't detract from what proved to be a galvanising weekend. More than 7000 fans packed the

picturesque Mt Barker ground to watch the Brisbane v North Melbourne match on Saturday afternoon, while Norwood Oval, one of the city's traditional SANFL venues, hosted the Fremantle v Gold Coast (Friday) and Giants v Hawthorn (Sunday) matches.

"It was an enjoyable yet challenging week to work and will definitely go down as a major highlight," says Adelaide Oval head curator Damian Hough. "All the benchmarking and measuring that has been done shows it was a massive success for South Australia. It was a real collaborative effort from all parties and the support from the club members and the spectators was brilliant. All the venues and turf crews did a great job and it was great to see how well Norwood and Mt Barker came up for their matches.

"The Adelaide Oval surface held up really well considering the extra traffic and an inch of rain. It wasn't just the six games in four days,



More than 220,000 fans attended the AFL's inaugural Gather Round in mid-April. Six games were played at Adelaide Oval (pictured), two at Norwood and one at Mt Barker



PHOTO: ADELAIDE OVAL/GETTY IMAGES

but all the extra stuff we had out there – the stages for the artists and entertainment, the increased traffic around the boundary lines, the pyrotechnic crews, cheer squads with banners and supporters getting the opportunity to be out on the ground as part of promotions.

"There was a bit of uncertainty when it was announced how the Oval would fair with the extra traffic. But we have hosted multiple games across multiple days before with the SANFL, so it was just a matter of putting our plans in place and trying to have the turf as healthy as possible. It was good to see those plans come to fruition and witness the passion and dedication of the crew to bring it together.

"We can be harsh critics of ourselves and you know within yourself what can be improved on for next time, but the surface held up really well and the team did a magnificent job. Now we move on to Gather Round next year and making it even better."



It was a hectic six weeks leading up to Gather Round for Adelaide Oval head curator Damian Hough and his crew

## NEXT LEVEL

Hough has been in the job long enough now to be well-rehearsed when it comes to transitioning the ground from summer to winter sports codes. No stranger to quick turnarounds and working to tight deadlines, this year was a little different in that they were also undertaking the biggest post-concert turf replacement in the venue's history.

No sooner had their cricket season ended on 26 February with a Marsh One-Day Cup match, the crew began the process of removing the seven drop-in wickets from the centre of the ground. With both day and night crews operating around the clock, between them they were able to get the wickets out over two days and nights, each deck taking around 2.5 hours to be lifted from the centre and placed on the outside oval.

A day after the wickets were out, one of the biggest concert builds began in earnest. English pop star Ed Sheeran was headed to Adelaide Oval on 7 March, playing the penultimate show in the Down Under leg of his worldwide Mathematics Tour. Hough has seen plenty of builds in his time, but this one was unique as the main stage was in the centre of the ground. Over six days the playing surface was dramatically transformed, with Hough and his stadium crew completing their processes to ensure the arena surface could withstand the stresses of hosting the one-off show.

"The set up was unbelievable," says Hough. "The way they built it was unlike any other I have seen before. There was a lot of attention to detail and it was a clean and tidy process. We had semi after semi driving out onto the field and so many cranes – it was amazing to watch.

"We have a set of processes and programs to manage the turf during these high stress periods. We have a recipe that we know if we can get close enough to then we can get

through these sorts of events and still have the turf in reasonable condition. In saying that, it was a little different this year as we knew we would be replacing a major section of the ground straight after.

"Our 'recipe' is pretty simple. We minimise the stress on the turf. We back off on the cutting, pull back on the nitrogen, apply Primo to slow the plant down and put out kelps and aminos to try and help the plant as much as possible. That process starts about 2-3 weeks out and then the week before you start to look at fungicide applications to make sure the plant is protected against the microclimate that the protective flooring creates.

"Managing moisture levels is a critical part of the recipe. We can't control the weather, but we can control the irrigation. We probably start to look at that about two weeks out. The challenge comes when you have profiles in different parts of the ground that are different ages from past concert turf replacements. They all behave a little differently due to the different organic levels, with moisture retention higher in some areas than others.

"It's all about trying to find that balance, so we use moisture probes and handwater a lot to get the levels as consistent as possible. We use a product called Your Floor pedestrian flooring and if we can keep moisture levels in the profile between 20-25 per cent, we know that most of the time the turf will hold up well."

## CENTRE FOCUS

Well before Ed Sheeran stepped out in front of 60,000 fans that packed Adelaide Oval, behind the scenes a systematic plan had been devised with HG Turf to resurface around 10,000m<sup>2</sup> of the playing surface immediately after the concert. With just 11 days until the ground's first AFL fixture of the 2023 season between Port Adelaide and Brisbane (18 March), planning was of the essence.





**The Ed Sheeran concert build was the biggest that Hough has seen during his time at Adelaide Oval and required the largest post-event turf replacement program in order to get the ground up for Round 1 of the 2023 AFL season**

Following the two-day bump out, on 10 March Hough and his crew went to work milling out the damaged turf in the middle of the ground (to a 60mm depth average). The base was then aerated before 15mm of fresh sand was imported and the whole area laser levelled ahead of the turf being brought in. With 10 years' worth of concerts and varying degrees of turf replacement on different parts of the ground, the scale of these works provided a good opportunity for Hough to strip a little bit more out and get the levels uniform across a larger section of the field, including the turf trays which replace the drop-in wickets once they are removed.

"The tray walls are 150mm and have 50mm on top, but over the years that had built up closer to 90mm," explains Hough. "These works gave us the chance to remedy that, as well as check the tray walls and the perimeter wall, which sits around the entire area, to make sure everything was fine. There was a lot of attention to detail and we also took the opportunity to work on the sprinklers and make sure their levels were right."



**Following the concert bump out, a 10,000m<sup>2</sup> section of the ground where the stage had been was stripped, aerated and re-levelled ahead of turf installation by HG Turf**

HG Turf oversaw the resurfacing works with Gleneg Turf Ace (Dave Rogers) providing expert assistance. Hough and his crew supported where required and also worked on bringing the outer turf areas, which hadn't been replaced after the concert, back into play. While it had been a busy period for Adelaide Oval staff, it had also been a frenetic one for HG Turf. Over the previous five weeks they had performed similar turf replacement works at Sky Stadium (Wellington, NZ), Eden Park (Auckland, NZ), Accor Stadium (Sydney) and the Melbourne Cricket Ground. They would also do Optus Stadium in Perth the week after.

The replacement Hero hybrid turf system (ryegrass) was harvested at HG Turf's Alexandra farm in Victoria and transported 12 hours across the border. Turf started going down on Sunday 12 March, with 2500m<sup>2</sup> being laid each day. The final 500m<sup>2</sup> of turf was laid on the western side and north-western corner of the oval on Thursday morning (16 March).

As well as the works happening in the middle of the oval, Hough also had to focus on returning the turf on the outer part of the



**The condition of the centre area of the Adelaide Oval surface after the protective flooring had been lifted**

field back to full health. As soon as the concert bump out began and the protective flooring was removed, the crew walked over the surface, picking up any rubbish and repairing any damage before giving the turf a drink.

That afternoon a fungicide application was put out, as well as a foliar feed with products containing kelp and amino acids. No nitrogen was applied at this stage as Hough didn't want to load up the plant too soon after the stress of being covered for the best part of a week. Aside from those applications, the turf was pretty much left for the next few days to allow it to breathe and soak in some sunshine, with the turf receiving its first mow five days later.

With the final lot of turf laid and the outer turf recovering nicely, the crew then had two days to get everything ready for the opening Round 1 match. The oval was pattern cut on Thursday followed by another foliar feed. It was cut again Friday and fully marked up, with logos going down and goal pads and wraps going up. It was a tight end to everything, but all the planning had paid off and the ground was ready to begin another AFL season.







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*The Hero hybrid ryegrass turf was harvested at HG Turf's Alexandra (Vic) farm and transported across for laying*

## BUILDING TO GATHER ROUND

With Round 1 successfully navigated, the next four-week period up until Gather Round was a critical one for Hough and his team. As well as juggling the different management needs of the new and old areas of turf, there were also the external requirements of managing training schedules and planning their cultural programs and targets to get the playing surface primed for Gather Round.

Outside of constantly monitoring the surface and adhering to their tried and tested nutrition and fungicide programs, the biggest challenge was managing moisture. The newer turf obviously required regular irrigation, but Hough had to be mindful of not overwatering the outer areas. Again, diligent monitoring of moisture levels, adjusting irrigation and handwatering areas where needed were the keys in achieving consistent levels.

Aerating the surface was also a constant process, with the newer turf solid-tined weekly to try and soften it a little and bring it into line with the outer areas. Ahead of the Round 3 Showdown between Adelaide and Port

Adelaide, Hough oversowed with Soprano ryegrass at 200kg/ha. It was then all about managing nutrition levels and ensuring the plant was at a point where it could handle the rigours of six games in four days and the increased volume of traffic on the oval as part of the Gather Round spectacle.

"We increased our nutrients and tried to make sure the plant was healthy and actively growing without it being too juiced up," explains Hough. "You want it up and about because you want the recovery, but if you have too much juice in it the turf can become slippery. It's poor viewing when the players can't keep their feet. We wanted to have the density as good as we could get it before Gather Round because we knew from that Thursday night the density was going to go backwards, especially in the high traffic areas."

"Managing the compaction was also critical. We got it where we wanted by Round 4 and we were planning not to aerate ahead of Gather Round. We wanted to give the ground a week off with the six games coming up, but the weather changed all that."



## HOLDING UP WELL

The one thing that Hough was praying for above all else come Gather Round was some good weather. Everything up until that point had pretty much gone to plan, but sure enough the weather would throw up one final challenge. With rain forecast to hit on Friday and Saturday, it necessitated some last-minute changes to their plans.

After the opening game on Thursday night, which was played in dry conditions, the crew worked late into the evening Verti-draining the ground, finishing it off the following morning. After the Friday night game between Sydney and Richmond, where it started to rain during the last quarter, the crew were out again, this time applying nutrients and penetrant ahead of the double-header on Saturday.

After some overnight rain, the first Saturday game was played in dry conditions, but by the time Port Adelaide and Western Bulldogs took to the field that evening, the rain had set in. All up, Adelaide Oval would receive an inch of rain across a 24-hour period, but the ground held up without issue, even with another doubleheader match day on Sunday.

"I thought it was going to be challenging given how close Ed Sheeran was and having to replace 10,000m<sup>2</sup> just six weeks before Gather Round, but it was probably a blessing in the end," reflects Hough. "Having that brand new turf in those high traffic areas held us in good stead and assisted with the heavy rain we got. The ground certainly got through better than it would have if we hadn't gone through that process. But it was also about your turf management practices – getting the ryegrass as healthy as possible, ensuring there was adequate drainage, getting the nutrient levels right and having the turf density where we wanted it."

"It was certainly one of the most satisfying periods that I've ever had working at Adelaide Oval. To play a role in all the works and to execute something that was really intense and on a big scale will be a highlight for a long time to come."

"The vibe around the place during Gather Round was incredible. We don't get to experience an AFL Grand Final, but it had that sort of feel about it. The media coverage was fantastic and we got some great feedback from the players, coaches and spectators. I even had an email come through to me from a Geelong supporter over in England who had watched the game on TV. He wanted to pass on his congratulations on how well the ground looked and held up. It was really nice to get that feedback and be able to show that to the staff who did a superb job in the lead-up to and during the round."

*The Adelaide Oval playing surface on the eve of its opening round game of new AFL season*



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# Forming The Furrows



*Kingston Heath superintendent Hayden Mead looks back on the construction and recent opening of The Furrows, the club's impressive new nine-hole short course.*

**O**n Saturday 22 April 2023, 'The Furrows' short course officially opened at Kingston Heath Golf Club on the Melbourne Sandbelt. The much-anticipated nine-hole, par three course, designed by Ogilvy Cocking Mead (OCM Golf), complements the existing championship course and offers the membership another unique golfing experience.

The origins of The Furrows can be dated back to 1986 when the club purchased eight hectares of land on the eastern boundary of the 12th hole of the championship course. Known as 'Madden land' after the original

family owners, it was used up until that point as a market garden. Soon after the purchase, the club relocated the 12th tee and widened the start of the fairway. In 2004, when the greens on the championship course were being reconstructed, a 19th hole was built on part of the land. In 2014 a portion at the southern end was converted into a turf nursery and in 2017 the 19th hole was rebuilt which took up more of the land.

Over the years, various committees had investigated numerous options on what to do with the block of land. In 2019, members were surveyed to indicate their level of support for the committee to investigate the building

of a short course. More than 75 per cent of the membership were supportive of such a move. In July 2021 information packs, along with a video render of a proposed short course produced by UK firm Harris Kalinka, were distributed to members, with information sessions following for those wishing to ask questions and seek any further details.

A member vote was subsequently carried out in September with an overwhelming 82 per cent voting for the project to proceed. OCM Golf was engaged to design and construct the course, with lead architect Mike Cocking producing a concept plan which consisted of a nine-hole par three course with holes ranging





*The Furrows nine-hole par three short course has been constructed on former market garden land purchased by Kingston Heath in 1986. This photo is taken from the southern boundary looking north, with the 5th green (left) and 4th green (right) in the foreground*

The main course greens were reconstructed to USGA spec in the early 2000s and seeded with Penn A1. With the assistance of consultant John Neylan, the short course greens were constructed to a specification that would replicate Sandbelt push up greens as close as possible. The sub-base of each green was welled out at a depth of 400mm and a herringbone drainage system cut into the natural sand. A blended sand measuring 400mm deep was then imported.

Sand selection for the new greens proved to be one of the most challenging aspects of the project and we ended up going with a blend of two sands from different quarries. Unfortunately, we couldn't get a consistent sand from one quarry which was draining too slowly. Once we decided that we had to blend two sands, the next challenge was to work out how and where the two sands were to be blended. We decided to blend them on site as it was going to be the cheapest method. Compounding issues, it was around this time that diesel prices started skyrocketing. Being just over 100km away from the quarry, cartage rates went up significantly.

A push up type profile was chosen to try and replicate a more traditional Sandbelt greens complex with a slower draining sand (once blended, the new sand had a drainage rate of around 110mm/hr) with better firmness capabilities. With the USGA greens on the main course we cannot get the firmness we would like out of that type of sand profile.



*Unlike the USGA green profiles on the main course, The Furrows greens are push ups. Pictured bottom is the double green 3 and 6 and top the 7th green*

from 60 metres to 120 metres in length, along with a putting green. Construction began in earnest in late December 2021.

## COURSE CONSTRUCTION

The Madden land had varying depths of sand and heavier soils. As part of the initial bulk earthworks, the property height was reduced by around 500 millimetres. The heavier soil excavated was used to form mounding around the property boundary, while the sand was stockpiled and put to the side. The site was then re-capped with that sand in order to have a constant sand depth of around 500mm.

The entire site was drained to a central point on the course from where it is then pumped off the site. All 34 bunkers are drained with a herringbone drainage system along with a sub-surface pit as well.

A Toro irrigation system was chosen, with Superior Green, who did the main course irrigation works a number of years ago, again selected to install the short course infrastructure. The irrigation system design joins in with the existing system on the main course. For greens irrigation, Kingston Heath uses a sulphur burner to treat bore water, with a dedicated treated water line to each green. This has been replicated on the short course, along with a separate potable water line for handwatering if required. Stealth irrigation heads have been installed around all greens and are currently set at 360 degrees. Once all vegetation is established, the irrigation heads will be adjusted to form a 'hard edge' design.

From a greens perspective, it was decided to trial a different construction method and a new variety of bentgrass on The Furrows.

PHOTOS: AIRSWING MEDIA AND GARY LISBON

PHOTO: NEARMAP





**Clockwise from top left – the Madden land prior to the short course construction when it was partly used as a turf nursery; the short course early in the construction phase; and (above) during the establishment phase**

With the new greens now in play, we are recording firmness with a Clegg hammer on both courses every month to monitor differences in firmness and speed. We have also just installed two soil sensors in the greens on The Furrows to monitor the difference in moisture and temperature between the two courses. The 7th green on The Furrows is a replica of the famed 10th hole on the main course and we have a sensor in both of these greens in the exact same spots.

From a turf perspective, we also wanted to try something different. While the club is really happy with the Penn A1 greens on the main course, the thought was we could trial a newer generation grass on The Furrows to see whether it performs better. Pure Distinction was chosen as it comes from the A1 family. It is slightly more aggressive than the A1 which means it might be able to better cope with pitch marks and recover quicker from the sort of traffic that a short course receives.

Knowing how well the A1 performs on the main course on a USGA style construction, we also wanted to see how it would fare on a push up profile. To that end, and to compare the two varieties side-by-side, the double green on 3 and 6 was sown with both Pure Distinction (3rd) and A1 (6th). To date we haven't seen a difference between the two varieties in terms of growth or disease resistance.

All greens had an organic fertiliser blended into the profile, with greens 1-8 hydroseeded

on 18 July 2022 and the 9th/putter completed on 12 August. There is just over 7500m<sup>2</sup> of bentgrass on the 10 greens which include three double greens – the 9th/putter, 1st/8th and 3rd/6th. The biggest double green (3rd/6th) measures 1819m<sup>2</sup> (including collar). Fine fescues were selected for the bunker tongues and these were also hydroseeded.

## ROLLING OUT, PLANTING OUT AND GROWING IN

At the start of the project it was planned that all couchgrass surfaces were to be sprigged. However, due to a few timing delays early in the project, it was decided to solid turf the 20,000m<sup>2</sup> of Santa Ana with maxi rolls. While adding to the cost of the project, it was a fortuitous decision as the winter and spring of 2022 in Melbourne was exceptionally wet. Having sprigs in the ground during the winter would have been a nightmare to manage.

The first maxi rolls, supplied by Global Turf in Tatura, went down on 15 June, with around one hectare laid by the Superior Green crew every week thereafter. Turfing had to be paused for a period while final construction work was completed, the last hectare of couch being laid in September.

Complementing the couchgrass and bentgrass playing surfaces is around 2ha of indigenous vegetation that was either seeded or planted. Some 9000m<sup>2</sup> of wallaby grass was hydroseeded in the first week of July

2022. Once it had germinated, planting of over 20,000 indigenous Sandbelt tubestock plants began around the boundaries and bunkers to replicate the look of the main course.

Ben Burke and Josh Meere, who look after the heathland areas across the whole Kingston Heath property, did the majority of the planting. A large variety of indigenous plants have been used, including over 5000 *Austrostipa mollis*, 3000 *Bossiaea cinerea*, 2500 *Dianella brevicaulis* and 2500 *Stylidium graminifolium*.

A wet 2022 spring hampered the grow-in phase of the project. As an example of the conditions, Kingston Heath recorded its wettest October on record, with more than 200mm falling (the average is normally 70mm). Bunker faces were continually washed away and silt contaminated the bases on numerous occasions. While battling these conditions, staff also had to focus on the bentgrass and couchgrass surfaces, with final cutting heights achieved by early November (couchgrass 9mm, greens 3mm and collars 7mm).

Disease pressure on the greens was high during establishment, with both the Pure Distinction and A1 experiencing outbreaks of pythium. Now that they are at greens height, rhizoctonia has been an ever-present threat.

On top of all those challenges, the crew also had to juggle the grow-in requirements around preparations on the main course for the 2022 ISPS Handa Australian Open. Kingston Heath co-hosted the first two rounds of the tournament with Victoria Golf Club.

With the course now open for play, two members of the Kingston Heath maintenance team are responsible for course set up each day which is completed separately to the main course. We are still working through the best way to operate and incorporate maintenance on a daily basis. The first tee time on The Furrows isn't until 10am, with 15-minute intervals between groups. That gives the staff plenty of time to set up each morning and they will generally stay on to undertake any other course maintenance tasks on The Furrows.

## A NOD TO THE PAST

Kingston Heath's origins as a club date back to 1909 when Elsternwick Golf Club was formed on a rather uninspiring, flat and swampy piece of land in the suburb of Elsternwick.



**The Furrows' unique wheelbarrow tee markers**



*The Furrows runs adjacent to the par five 12th hole on the main course. Pure Distinction bentgrass has been used on the new short course greens*

It didn't take long for the club to recognise that a relocation was needed and in 1923 it purchased market garden land in Cheltenham from multiple owners. It was a courageous decision and by 1925 play had started and the club was renamed Kingston Heath.

During the construction and grow-in of the new short course, the Kingston Heath committee undertook a thorough process to decide upon an appropriate name. With both the existing course and new course being constructed on market garden land, it was decided to call the short course 'The Furrows'.

A 'furrow' is a long, narrow trench made in the ground by a plough, especially for planting seeds or irrigation, and to this day you can still see the market garden furrows running through the fairways on the 1st and 6th holes of the main course. The Furrows is a subtle and historical reference to the prior use of the land and encourages discussion to understand more about the origins and history of club.

Further to the name, The Furrows logo features an old Massey Ferguson, a fun and playful nod to years gone by when the market gardens were ploughed by tractor. The club is still working through ideas for



appropriate course accessories (e.g.: markers, flagsticks, seats etc) and we currently use old wheelbarrows with sand in them as tee markers, complete with an old hand trowel. The rustic-looking wheelbarrows have been diligently sourced by our director of golf through Facebook Marketplace! Originally the plans were for the construction of a small hospitality pavilion adjacent to the 1st tee, however, the club has put this on hold for the moment until a better understanding of course usage is determined.

Feedback from members to date about The Furrows has been extremely positive. While usage is very weather-dependent at the moment, we are finding that a lot of members are making last-minute bookings to play the course when they have a free hour during the day or after work. It will be interesting to see how the course and its usage evolves over the coming year, while from a course team perspective we are looking forward to the surfaces maturing and presenting them in the best condition possible. 🌱



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# The accidental superintendent



PHOTOS: DARREN MOORE/STONEHILL

*Darren Moore (right) has been director of agronomy at the exclusive Stonehill development in suburban Bangkok since 2020. Here he is pictured with Stonehill owner and executive director Saris 'Ing' Ratanavadi ahead of last October's LIV Golf Invitational event*



*Rohan Clarke catches up with ex-pat Australian superintendent Darren Moore, whose remarkable journey in turf has taken him from a small Victorian country town to be Jack Nicklaus' regional agronomist and onto some special and exclusive golf clubs in the Asia-Pacific.*

**A**t 18 years of age, Darren Moore fancied a professional lawn bowls career. He had just won the Australian Junior Pairs Championship and thought he could play full-time with a bit of greenkeeping at a bowls club on the side before pursuing tertiary education.

But a chance conversation at a family lunch would change all that. Then Metropolitan Golf Club general manager John Le Boeuf insisted Moore should try golf greenkeeping: "You're going to love golf course greenkeeping and you should move to Melbourne and do some casual work under Peter Sawyer while you wait for your university entrance results."

Moore heeded that advice and undertook an apprenticeship at the Melbourne Sandbelt club and three decades on is now director of agronomy at Stonehill, an ultra-exclusive golf course in suburban Bangkok, Thailand. Stonehill won rave reviews for its outstanding condition when it hosted LIV Golf Invitational Bangkok last year, cementing Moore's reputation as one of the finest superintendents in the Asia-Pacific.

## THE NICKLAUS CONNECTION

Moore's journey to Bangkok is an interesting tale of opportunities grasped. Having grown up in the small Victorian township of Yea (population 1000), 90 minutes north of Melbourne, Moore had intended to pursue an environmental science degree at university. However, the opportunity to become an apprentice greenkeeper at Metropolitan whet an appetite for outdoors work. Invigorated by working the 1993 Australian Open and completing his apprenticeship, Moore decided to travel abroad in 1994.

At 22 years of age, Moore's big break occurred when he applied for an Ohio State University internship with Mike O'Keeffe. On the recommendation of Metropolitan staffer Sam Myott who had just returned from Muirfield Village Golf Club, Moore filled out the application form seeking placement at a coastal championship course in Florida, as that's where a lot of construction was happening at the time. He wound up at Bear Lakes Country Club in West Palm Beach, Florida, a Jack Nicklaus-designed course. It brought him into contact with Ed Etchells, the renowned agronomist and former business partner of the 18-time Major champion.

Moore must have left an indelible impression with the Nicklaus organisation because – with two months remaining on his visa – he was approached by Etchells to work at 'Jack's Yard', the practice facility at the back of the Nicklaus family home. As Moore couldn't stay and work in the US, he interviewed for positions in Bahrain and The Philippines before being contracted to work as 3IC at Lakelands Golf Club on the Gold Coast, the Golden Bear's first signature design in Australia.

But upon arrival for his first day's work at Lakelands, then superintendent Steve Marsden told Moore he had received a phone call from the Nicklaus group. Moore was told to pack his bags and fly to The Philippines to be assistant superintendent at The Manila Southwoods Golf Club. He was to help prepare the course for a major event and then be moved to a grow-in job at a new Nicklaus course outside of Manila. That was Monday. On Friday he boarded a plane to Manila. Upon arrival there he was greeted with the news: "There is a change of plan. The club terminated the superintendent last night. You're it!"

All of a sudden, Moore was in charge of 135 workers to prepare the 36 holes at Manila Southwoods to host the 1996 World Amateur Teams Championship. Moore and his team had six months to get the facility in tip-top shape. Moore survived the baptism of fire and, coincidentally, Australia captured the Eisenhower Trophy for a third time by 11 shots.

During those seven years in The Philippines, Moore married his wife Simone who he had met in Palm Beach, Florida. "We were both young and worked long hours and Simone kept busy in The Philippines as she worked at the Dutch Embassy," says Moore. Both of their daughters were born in Manila too. Workwise, Moore helped prepare the course for many international events and achieved full certification with the Audubon Cooperative Sanctuary Program for Golf Courses in 1999, the first course in the Asia-Pacific region to achieve the distinction. The following year, the GCSAA awarded Moore the International Environmental Steward Award for overall environmental excellence.

With a desire to give their daughters an Australian upbringing, the family relocated to the Gold Coast in late-2002 and Moore worked at the ClubCorp-owned Lakelands as superintendent for five years. That enabled him to complete a Masters degree in turfgrass management under Dr Peter Martin, studying off-type bermudagrasses and genetics.

When a Japanese consortium bought out Lakelands at the end of 2006, Moore took the opportunity to venture abroad again in 2007. He accepted the superintendent role at the prestigious Shadow Creek Golf Club in Beijing, where houses in the residential golf estate were valued at \$US10-14 million. Simone could work in the Dutch Embassy, however,



**Before and after on a new green at Mt Lawley Golf Club W.A. at only 10 weeks after seeding.**

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Stonehill's turf surfaces comprise TifEagle greens, Zeon zoysia fairways and Trinity zoysia tee and green surrounds

it meant educating their young daughters at an international school with a British/Chinese curriculum (British School of Beijing).

Moore's work in China turned into a busy 12-and-a-half years. While based at Shadow Creek, Moore was appointed as Nicklaus Design's consulting agronomist for Asia-Pacific under Jon Scott, enabling him to be involved with many new golf courses, mainly in China.

Evergrande Group purchased Shadow Creek from New World Group at the start of 2017 and wanted Moore to also be general manager, so for three years he worked in a dual role upgrading the club. He travelled back frequently to the Gold Coast to see the family, which had relocated so their daughters could finish the last few years of high school.

By 2019 China Evergrande (one of the world's largest property developers) was starting to show signs of stress and in December Moore was put in touch with the owner of Stonehill, an exclusive new course being constructed in Thailand. Moore flew

to Bangkok to meet the owner and view the Stonehill property and in January 2020 was duly appointed as director of agronomy.

Of his reasons for committing long-term to Bangkok, Moore says: "The owner really amazed me and demonstrated so much vision and passion for the project. They knew what they wanted. Apart from a great clubhouse and course, they also supported the operations by building a state-of-the-art maintenance facility and ensuring great working conditions.

"I also thought the travel could work a bit easier as Bangkok would be closer to home. I thought with regular and cheap flights to the Gold Coast, everyone could be up and back on a regular basis. The girls were at university. I told them it will get easier and easier... then COVID hit one month later!"

## SOMETHING UNIQUE

No expense was spared at Stonehill, where membership is exclusive and by invitation only. What separates it from other southeast

Asian courses is the sheer magnitude of the 150-hectare property. Course designer Kyle Phillips has transformed dead-flat rice fields into undulating ribbons of turf in the suburban jungle on Bangkok's northern outskirts.

Thai landscape architecture firm, P Landscape, designed the landscape and took care of tree selection, while US-based architect Hart Howerton, who specialises in hospitality, designed Stonehill's impressive clubhouse. The clubhouse boasts imported Italian limestone blocks, elaborate stained mirrors and beautiful Thai teak wood carvings, all of which add to Stonehill's mystique. Stonehill's official grand opening was on 30 July, 2022, however, before and after the LIV Golf tournament last October there was limited play for the owners and friends only.

Phillips and course construction consultant Flagstick were given the brief for Stonehill to play hard and fast, a little bit different for Asia. The owners wanted Stonehill to drain rapidly, allowing for cart usage during the rainy season (May to mid-October). The green complexes feature heavy bunkering with steep grassy slopes and runoffs. It plays long at 7188 metres from the tips. Generous, rolling fairways make Stonehill a second-shot golf course.

From tee to green, the playing surfaces account for more than 36 hectares. Putting surfaces are TifEagle couchgrass, fairways are Zeon zoysia (known in Australia as Sir Grange zoysia) and tee and green surrounds are Trinity zoysia. The Bahia rough is interspersed with more than 4000 trees. The distinctive 'rain trees' are a feature, known for their wide-canopied, umbrella-like crown.

Stonehill's green complexes have a unique aesthetic given the colour contrast between the Zeon zoysia fairways, Trinity zoysia aprons and TifEagle putting surfaces. The fine Trinity zoysia approaches offer a purer ball roll, but require constant supervision with regard to fertility, thatch management and contamination.

The approaches and movement in and around the green complexes are a feature at Stonehill. "The reason we went with Trinity zoysia was because the owners wanted a shorter cut, even down to green heights, in and around the approaches," explains Moore. "We mow the approaches near 4mm most of the year, but we could take them down to 3.5mm depending on the weather.

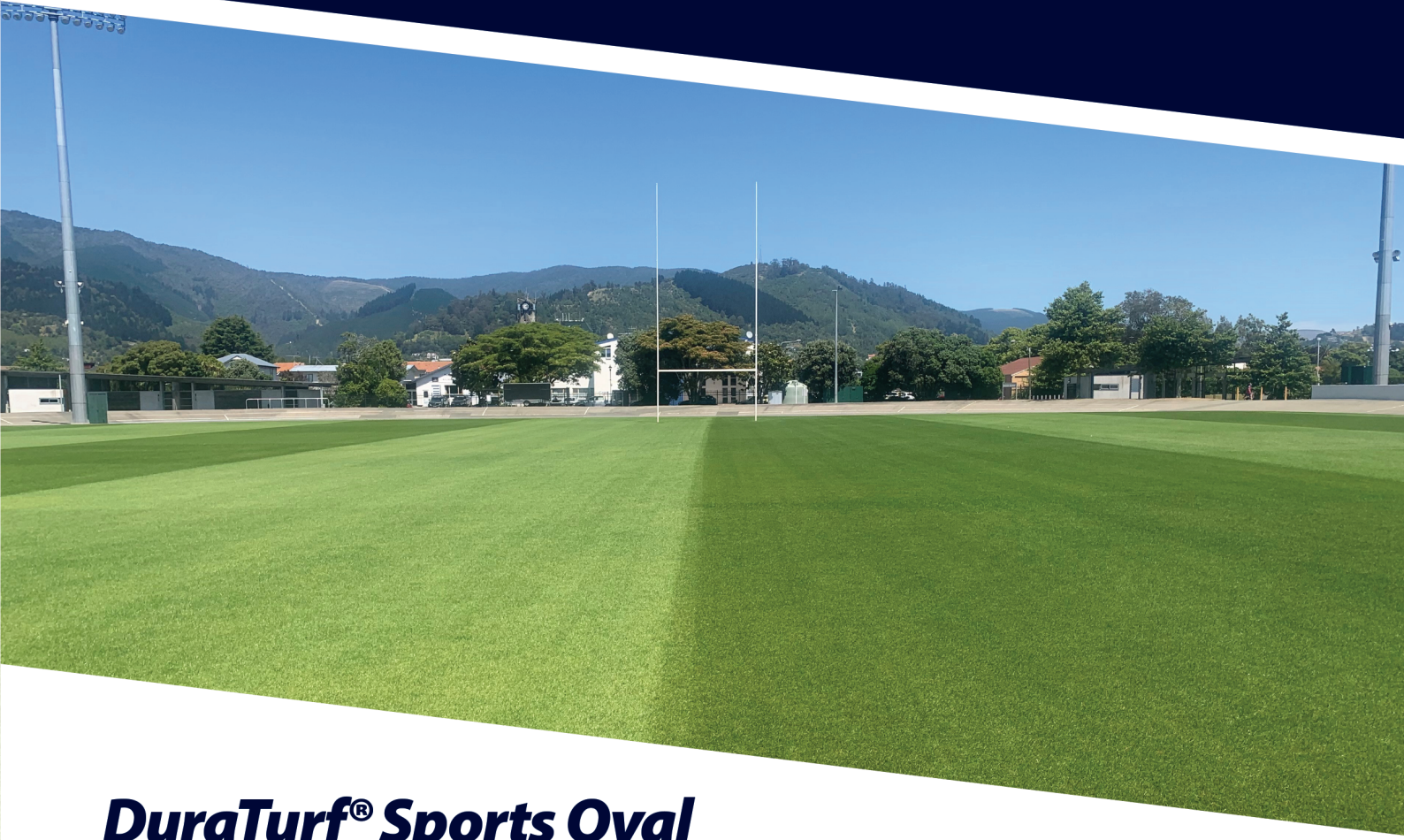
"The club wanted a hard, fast and defined look around the green complexes. That includes the bunkers as well. Trinity has been planted inside the bunker slopes near the greens. It's definitely more maintenance but the look and playability is quite unique."

Located on historically "poor soils", the golf course has been fully sand-capped at a depth of 250 millimetres to improve drainage. Additionally, between 90-100 kilometres of herringbone sub-surface drainage piping



Moore says the owners wanted a hard, fast and defined look around the greens complexes, with Trinity zoysia also planted inside the bunker slopes near the greens





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*Stonehill has a current maintenance crew of 93, with more than 60 staff dedicated to the golf course which includes turf maintenance, landscaping and detailed bunker work*

(100mm) was installed underneath the playing surfaces. The golf course build involved a huge amount of bulk shaping, cut and fill offsite, installing of irrigation and drainage, interlocking creek systems, sand-capping, seeding turf, growing flora, transplanting trees and paving cart paths.

The attention to detail at Stonehill is quite remarkable, including wider than usual three-metre paved cart paths, rock-stacked streams and bridges, huge tripod braces for fledgling trees and an artificial levee surrounding the course perimeter that forms a 3.5m-high barrier to protect against extraordinary flooding.

According to Moore, a major challenge was getting the playing surfaces established

during the lengthy grow-in period (2018-2021). The rainy season created issues with regard to soil stabilisation, the danger of algae and keeping density on the turf, especially the TifEagle putting surfaces.

## CHALLENGES OF LIVING ABROAD

No sooner had Moore arrived at Stonehill came the COVID pandemic. That meant separation from family and friends back in Australia as the world came to a standstill. Grappling with loneliness in a foreign country can be a pitfall.

"You can get lonely and have too much time to think by yourself, especially if you get some work stress," says Moore. "This job



*Almost half of the staff are women, including the entire team of 12 dedicated to fairway mowing*

was busy at grow-in and pretty full on. I was probably doing 10- or 11-hour days. In a lot of Asian countries, they work on a Saturday or a Sunday, so you're in here for half a day on a Saturday. It keeps you busy, which was probably a good thing through the pandemic as many people around the world had some tough times."

To relieve the homesickness, the 51-year-old can hop on the BTS Sky Train to catch up for dinner or chat with several good industry friends and some Australian turf professionals working in and around Bangkok. Moore also likes to connect with Australian superintendents working in Asia, New Zealand and Australia.

## AT A GLANCE – STONEHILL, BANGKOK, THAILAND

**Course specs:** Par 72, 18 holes, 7188m, practice range and short-game complex spread across a 150-hectare property.

**Course design:** Kyle Phillips

**Clubhouse design:** Hart Howerton

**Landscape design:** P Landscape (PLA)

**Putting surfaces:** TifEagle couch (1.7ha)

**Tees:** Trinity zoysia (1.2ha)

**Approaches/aprons:** Trinity zoysia (2ha)

**Fairways:** Zeon zoysia (34ha)

**Rough:** Bahiagrass (30-plus ha)

**Members:** Membership by invitation only.

**Major tournaments/events:** Following its official opening (30 July 2022), Stonehill staged LIV Golf Invitational Bangkok (7-9 October 2022). It is anticipated Stonehill will again host a LIV Golf tournament in the future.

**Staff structure:** Stonehill has a current maintenance crew of 93. Australian Darren Moore is director of agronomy and his role is primarily to train locals, the overwhelming majority of whom had no prior experience in golf. More than 60 staff are dedicated to the golf course, which includes all turf maintenance, bunker maintenance and internal landscape areas. Almost half the staff are women, including the entire team of 12 dedicated to fairway mowing. Six

people are allocated to the equipment-service department. "The aim for myself with the owner is to not only manage the large property but really train the Thai staff and supervisors," says Moore.

**Management:** Stonehill is a privately-owned club. It's normal for Moore to see the owners several times a week. Very approachable and with an emphasis on family values and teamwork, they've been very hands-on from construction/design to hiring contractors and tournament preparation.

**Climate/rainfall:** Bangkok is considered a tropical savanna climate, similar to Darwin and Townsville. It is characterised by three distinct seasons: hot, rainy and cool (despite the latter averaging 22°C in December). The hot season peaks in April with an average high of 35.4°C. The rainy season begins around mid-May and lasts until October. September is the wettest month with a rainfall average of 334.3mm (13.16 inches).

**Terrain/soil types/drainage:** Stonehill was built on former rice fields with soils not conducive to golf. The entire course has been sandcapped at a depth of 250mm. An artificial levee surrounding the course's perimeter forms a 3.5-metre-high barrier

to protect against extraordinary flooding.

Between 90-100 kilometres of herringbone sub-surface drainage piping (100mm) was installed underneath the playing surfaces.

**Cutting heights/regimes:** Greens are mown most days near 3mm and rolled twice a week. Fairways are mown three times a week (twice in low-growth periods). Tees and approaches are mown three times a week (4mm). Bunker faces are cut every week with a hover mower and detail hand trimming of bunker slopes.

**Maintenance budget/equipment:** Toro and Jebsen and Jessen has supplied Stonehill with about 95 per cent of its maintenance fleet of vehicles as well as all irrigation products.

**Renovations:** Yearly deep verticutting, coring and topdressing of all surfaces.

**Major weed/disease pressures:** "Everything wants to grow in the tropics; it's a constant lookout," says Moore. "Weed pressure is high in Asia. Contamination is high, just naturally. You've got a lot of native zoysias. You've got bermudas here. It's hard in Asia as the clubs get older. We will try and keep it as clean and tidy as we can. That's what the owner wanted originally – use certified grasses and try to keep it as clean as we possibly can with the resources we have."



Hiring and training staff at Stonehill was problematic through the COVID period as many workers went back to the provinces. Just 18 staff were on the crew initially and the club had to build the numbers up to 90 for the pre-opening. Most of the maintenance team didn't have any type of golf experience. "Two-thirds of the crew had come from farms or factories," says Moore. "Even learning how to drive a vehicle was a challenge for them." More than 60 staff are now dedicated to the golf course, which includes turf maintenance, landscaping and detailed bunker work. Almost half of the staff are women, including the entire team of 12 dedicated to fairway mowing.

The language barrier is a daily challenge, with just four of the maintenance team able to speak English. Unable to speak more than some basic Thai, Moore communicates with the staff through his interpreter Jenny, a former Emirates business-class flight attendant. He also relies heavily on golf course manager Sathorn Phathum (Mac) and equipment manager Thanathus Plubyindee (Kho) who help support, train and communicate with all the staff. Given his language struggles, it's a testament to Moore's resilience that he's been able to survive so long in Asia.

"In China, my Mandarin was terrible and you must adapt with a translator in many Asian countries," concedes Moore. "I've always just



*Stonehill was fully sand-capped at a depth of 250mm to increase drainage. Additionally, between 90-100 kilometres of herringbone sub-surface drainage piping (100mm) was installed underneath all playing surfaces*

got by. I don't know why. I want to put the time in because I love talking to people. And I like communicating with staff. That's probably my biggest regret... less time on the turfgrass, maybe more time on learning the language."

A layman may be forgiven for assuming Stonehill is a cruise job for a superintendent. After all, most courses don't cater for less than 30 golfers a day, with a maintenance staff of 90, a supply budget in excess of millions of dollars and machinery valued in the millions.

But Stonehill is anything but a cruise for Darren Moore – the accidental superintendent.

"It's always go, go, go in Asia," says Moore. "I've been fortunate to work with some great owners with a lot of passion and resources, which enables our maintenance team to complete many projects and keep upgrading the course. Loving the course, the country you are in and the outdoor work keeps me going. I'm lucky I was introduced to a golf course when I was 18 back in Melbourne."

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## STONEHILL COURSE AND CREW 'LIV' UP TO INAUGURAL TOURNAMENT TEST

Most superintendents have the luxury of at least a year to plan for hosting a professional tournament. That wasn't the case for Darren Moore, director of agronomy at Stonehill, the ultra-exclusive golf course in suburban Bangkok. Moore had less than six months' notice before hosting LIV Golf Invitational Bangkok, the sixth event on Greg Norman's Saudi-fuelled circuit challenging the authority of the US PGA Tour.

Complicating matters, last year's 54-hole tournament was staged in October at the end of Bangkok's rainy season. That in itself was a challenge for Moore's staff of 90, most of whom had only ever witnessed a handful of golfers on Stonehill's pristine Zeon zoysia fairways. Play had been limited to just family and friends of the owner and some staff had literally never seen a divot before.

Tournament preparation during the rainy season in June, July and August became a logistical nightmare. While Moore could verticut every two weeks during the dry season, that wasn't an option in the wet season.

"For three months before the tournament, I couldn't be too aggressive on the TifEagle greens," explains Moore. "I had to keep cover. If I verticut them, I would have opened up the canopy and algae can get in easily. So, I had to spike, dust every Monday and then just try to brush the greens and lightly groom them without being too aggressive. But they needed a really good verticut every week."

"As we got closer to the tournament, we put more work into the greens. And they still rolled well for the weather. The risk was that if I did verticut them to reduce the grain – or get into them to provide better ball roll – then I would have got the algae and it could have gone south quick. We could've lost greens."

Stonehill was designed with tournament golf in mind. Much thought was put into providing ample room for car parking, media facilities, staging areas for cameras and 'après golf' such as concerts. LIV officials remarked that Stonehill would be the least problematic of all the venues selected for their debut season.

Stonehill held up to the LIV test and got lucky with the weather, despite a deluge that saturated the course after the second round. Moore and the maintenance supervisors put in 90-95 hours that week with staff in at 4am to prepare for a 10.15am shotgun start.

"That was a challenge," says Moore. "We had to mow 34 hectares with all our fairway mowers in the morning. And prep everything. We had three teams of six on the greens and one big fairway mowing team. Tees and approaches, they all followed the same sequence, just like a snake. We started in the middle part of the course on the big holes. Then when the sun came up, we could see all the important holes near the clubhouse."



*Last October's LIV Golf Invitational Bangkok was the Stonehill crew's first major tournament test*

To the naked eye, Moore concedes LIV players wouldn't have noticed the difference if they stopped mowing every day. PGRs Growth regulators were used on and around the greens. However, tournament golf's desire for uniformity on closely mown surfaces was the driver behind daily mowing, except on Sunday when the previous day's storm prevented cutting.

LIV players appeared to be pleasantly surprised to discover a golf course playing firm and fast in a tropical savanna climate. They oozed praise upon the conditioning of Stonehill: "I think in terms of the conditions, it's pristine. Literally, it's holy ground. It's so pure out there," said India's Anirban Lahiri, a two-time Presidents Cup representative. "I would say this is the closest you'd come to maybe comparing to conditions at Augusta, just in terms of the pure turf conditions. It's phenomenal."

Dustin Johnson noted that it was "one of the nicest conditioned courses I've played on", while Phil Mickelson praised the course for being in "incredible shape". "I don't know if I've seen a golf course in this good a condition. It's also a wonderful design, very fun to play, great risk-reward and I'm glad to see such world-class architecture, design and golf in other parts of the world and here in Thailand."

Positive player reaction and media coverage justified the effort by Moore's team. In terms of personal satisfaction, the highlight was seeing Stonehill's maintenance crew get through the week: "They really didn't know what was coming their way as they weren't used to much member and guest play. They embraced detailed training programs and practising for the morning shotgun start – each team had to learn to do their work in the dark with lights. I think they really enjoyed the experience and were amazed with the setup and atmosphere during the week."



*Stonehill sprawls across 150 hectares, with course designer Kyle Phillips transforming a dead-flat site of rice fields into undulating ribbons of turf in the suburban jungle on Bangkok's northern outskirts*



*Fellow ex-pat Australian superintendent and good friend Gavin Reid (left) was a welcome addition to Moore's team for the LIV Golf tournament*





# OnLink™ changing the game

Greenkeepers and superintendents across Australia and New Zealand will soon have a new set of tools available to them to transform their working lives with the launch of the transformational John Deere OnLink platform.

With features from labour management to fleet monitoring and cost analysis, the cloud-based software is designed to improve communication among course staff, streamline efficiency and allow for more data-driven decision making.

OnLink will be launched at the Australian Sports Turf Managers Association (ASTMA) annual conference at the Adelaide Convention Centre from June 19 - 22.

John Deere Product Manager, David Anderson, will be at the conference to demonstrate the software, which has been continually updated and refined since its United States launch in 2019.



"This is the first time we've launched OnLink outside the US, so customers in Australia and New Zealand will benefit from the latest and greatest version of the product," Mr Anderson said.

"There are some tools on the market that do support labour or equipment management, but OnLink is unique in that everything can be done in one place.

"This means all the jobs superintendents are currently doing, whether on a whiteboard, notebook, or spreadsheet, can now be

accomplished within the OnLink platform and are easily accessible wherever they are, on any internet connected device." "As well as improving efficiency, the data available on the platform can be used to make more proactive choices around operating at a lower cost and more sustainably."

The OnLink platform records data through automatic and manual entry for items such as soil moisture, water usage, greens speed, product inventory, and weather conditions. A summary of this data is presented on the OnLink dashboard to keep staff informed in real-time.

Superintendents can assign and monitor their team's jobs from any device, keep track of their fleet and schedule maintenance.

John Deere Australia/New Zealand Production Systems Manager, Stephanie Gersekowski, said OnLink will be focal point in further optimising the industry-leading technology already available for local customers.

*"The more John Deere machines you connect to OnLink, the greater the value for greenkeepers and superintendents because that integrated data becomes really powerful," Ms Gersekowski said.*

"Say there's a sudden shift in weather, or a last-minute change to a tournament schedule, they can update a work planner and instantly send that through to the entire team.

"There's a lot of excitement about the software coming to Australia and New Zealand, particularly with larger courses already running a whole fleet of green and gold.

"Launching OnLink at the ASTMA Conference gives us a chance to come together with others in the industry and engage with our customers. It's wonderful to see such buzz around the turf industry at the moment and we're excited to contribute to that."

To learn more about OnLink, visit the John Deere stand at the 2023 ASTMA conference, or see your local John Deere dealer.





# Welcome to Adelaide!

*ATM looks ahead to the 2023 Australian Sports Turf Management Conference and Trade Exhibition to be held in*



*Adelaide from 19-22 June.*



**T**he Australian Sports Turf Managers Association (ASTMA), together with conference partners Toro and Syngenta, welcome all delegates to the 2023 Australian Sports Turf Management Conference and Trade Exhibition. The Australian turf industry's largest annual gathering makes a welcome return to South Australia for the first time in 12 years, with the city's magnificent Adelaide Convention Centre to host delegates from 19-22 June.

It is quite fitting that this year's conference is being held in Adelaide. The city has become quite the focal point in recent times, with the iconic Adelaide Oval successfully hosting the AFL's inaugural Gather Round in mid-April, followed a week later by the first LIV Golf event to be held in Australia at The Grange Golf Club. It is also set to be in the spotlight for the upcoming FIFA Women's World Cup 2023. Hindmarsh Stadium is one of six Australian venues to be used during the month-long festival of women's football this July, hosting four pool games and a Round of 16 match.

Over the next 14 pages ATM takes a look at some of the major speakers and highlights of this year's education sessions, previews the ASTMA Golf Championships which will be played at the famed Royal Adelaide Golf Club and profiles the state finalists for this year's Graduate of the Year Awards. On page 40 you will find the full conference program and on page 42 a floorplan and list of companies exhibiting during the two-day trade exhibition.

The ASTMA has brought together a stellar cast of speakers and presenters this year and the following are some of those who will be gracing the stage in Adelaide...

## **GORDON MOIR**

Moir is the immediate past president of the British and International Golf Greenkeepers Association (BIGGA) and former St Andrews links superintendent and director of greenkeeping. After cutting his teeth at the historic Fraserburgh Golf Club in Scotland, Moir moved to St Andrews in 1991 to be head greenkeeper of the Eden Course. In October

2000, he was promoted to the position of Links superintendent which gave him responsibility for all turf matters across the six links courses along with the workshop and equipment and gardening team. In 2005 Moir was heavily involved in the planning and construction of the seventh course managed by the Links Trust, the Castle Course.

Moir would oversee preparations for three Open Championships (2005, 2010 and 2015) as well as the 2007 and 2013 Women's British Opens, the 2004 Amateur Championship, the 2008 Curtis Cup and the 2018 Senior Open. During his 18 years in charge, Moir became ever increasingly involved in the environmental management of the Links and surrounding areas and was the main driver behind its push to be more sustainable and environmentally friendly. To that end, St Andrews Links was the first course on Open rota to gain Golf Environment Organisation certification in 2011.

In Adelaide, Moir will be giving a Plenary session talk on sustainable turf management at St Andrews, as well as a follow up talk





PHOTO: ADELAIDE CONVENTION CENTRE

on staff management. There will also be a special launch of his recently-released book 'St Andrews – The Greenkeeper's Tale'.

## DR JIM BROSNAN

Dr Brosnan is a professor in the Plant Sciences Department at the University of Tennessee (UT), USA and director of the UT Weed Diagnostics Center. In this role, he leads research, extension and diagnostic programs targeting the needs of Tennessee's \$US5.8 billion turfgrass industry.

Dr Brosnan maintains an active research program focused on the control of problematic weeds in turfgrass systems. Such work has been recognised via awards from the Northeastern and Southern Weed Science Societies, as well as the Crop Science Society of America and Sports Turf Managers Association.

Dr Brosnan serves as an advisor to the Tennessee Turfgrass Association and is active in the Weed Science Society of America, Southern Weed Science Society, GCSAA and STMA. He is viewed as a leading information source in the industry, offering guidance to several PGA Tour venues and National Football League franchises.

In addition to his Plenary session address on the future of weed control, Dr Brosnan will give talks on strategies for maintaining overseeded sportsfield surfaces and *Poa annua* control and will be a key part of the dedicated *Poa annua* and resistance workshop to be held on Thursday (more on that below).

## DR NATHAN WALKER

Dr Walker is a professor of turfgrass integrated pest management (IPM) and turfgrass pathology at Oklahoma State University (OSU), USA. Dr Walker joined the Department of Entomology and Plant Pathology at OSU in 1999. He is also the current editor of International Turfgrass, the newsletter of the International Turfgrass Research Society and past associate editor for a range of industry scientific journals.

Dr Walker is the director of the OSU Turfgrass Disease Diagnostic Laboratory and his memberships in societies include the American Phytopathological Society, International Turfgrass Society, European Turfgrass Society and the Oklahoma Turfgrass Research Foundation. He has been a scientific reviewer for over two dozen journals and his research has been continually funded by the United States Golf Association since the mid 2000's.

Dr Walker has visited and spoken in Australia before and is currently co-operating with Dr. Percy Wong in the identification and taxonomy of several new emergent turfgrass pathogens. Dr Walker and Dr Wong will team up as part of the specialist ERI workshop to be held on the Wednesday, in addition to his Agronomy Stream session on IPM and strategies for improving disease control.

## SPECIALIST WORKSHOPS

With our international turfgrass experts in town, two major workshops will be conducted on the Wednesday and Thursday. Wednesday's four-hour ERI workshop will include Dr Nathan Walker, Dr Percy Wong, Gary Beehag, John Neylan and Bruce Macphree. Dr Walker will discuss the biology and interactions of ERI fungi associated with grasses, before Dr Wong and Beehag provide an Australian perspective on ERI, looking at the many pathogens that have been identified and their symptoms. Neylan will look at the influences of management practices and climate on ERI disease activity.

Thursday's four-hour *Poa annua* and resistance workshop will feature Dr Jim Brosnan, John Neylan, Jyri Kaapro, Dr Peter Boutsalis and Bruce Macphree. Dr. Brosnan will look at new strategies and the latest updates coming out of the US regarding *Poa annua* control, while Neylan will look at *Poa annua* from an Australian perspective and highlight key points in developing an effective control

## FROM THE PRESIDENT...



As this is my first national conference as the newly-elected president of the Australian Sports Turf Managers Association (ASTMA), I am excited to welcome all delegates to Adelaide for the 2023 Australian Sports Turf Management Conference and Trade Exhibition.

The recent transition out of COVID-era restrictions has opened the borders for a return of international speakers this year, with ASTMA chief executive Mark Unwin and events manager Simone Staples, together with the ASTMA team, doing a fantastic job in procuring highly credentialled presenters and local experts to stimulate and challenge our thoughts on why we do what we do.

Once again we have a very strong and diverse array of content for all sectors of the turf industry and the sold out trade exhibition is also testament to the strong support we receive from our industry trade partners. Mark will also be expanding more on his collaboration with our fellow international associations on some industry initiatives that will further strengthen sports turf management for the future.

I am also looking forward to hosting the National Turf Industry Awards Dinner, sponsored by Syngenta, where we showcase outstanding achievements in our profession from across the country. It is a great start to the week and a fantastic opportunity to reunite with our peers and acquaintances to talk all things turf.

It is a significant exercise to run an event such as this and we certainly couldn't do it without our conference partners Toro and Syngenta. I would like to sincerely thank them for their continued support of the conference and our industry in general.

I am looking forward to an exciting week and hope that you all enjoy the educational component as well as the camaraderie that comes with an event such as this. Enjoy the week and I look forward to seeing you in Adelaide.

**Ben Tilley (CSTM)**  
**President, ASTMA**  
**Superintendent, Headland GC**





*During his 18 years in charge at the 'Home of Golf', former St Andrews Links superintendent Gordon Moir was the main driver behind its push to be more sustainable and environmentally friendly*

program. Dr Boutsalis will look at resistance mechanisms and provide an update on recent research, while Kaapro will discuss resistance management, sequential applications and pre- and post-emergent strategies.

## DR KAREN MAHER

Maher brings over 20 years of experience in the field of Australian WHS and culture and during this year's Plenary session will present on creating a culture of trust in the workplace. Maher partners with and presents to a diverse range of industries and clients within Australia and across the globe, from the NRL to emergency services, retail, tech companies, health, construction manufacturing, government agencies and everything in between.

Initially an employment and safety lawyer in Australia and the UK, in 2010 she left law to start her own consultancy. As founder of SmartCulture, Maher has worked on over 300 cases from all parts of the process including legal, investigations, advisory and process improvement. She is passionate about the prevention of psychosocial hazards such as bullying and sexual harassment and focuses on the fundamentals of great culture and leadership to make this happen.

## BROOKE HANSON

A revelation when she spoke at the Jacobsen-sponsored Future Turf Managers Initiative held back in March, former Olympic swimmer Hanson will provide the closing address of the opening day's Plenary session. Hanson made her debut for the Australian Swimming Team at the 1994 Commonwealth Games before going on to represent Australia over 25 times at major international championships.

In 2004 she fulfilled a childhood dream when, after missing two Olympic teams in 1996 and 2000, she won Olympic gold and silver medals in Athens. She also created history at the 2004 World Short Course Championships where she won a record six gold medals – five individual and the 4x100m medley relay in world record time. Post her swimming career, Hanson has dedicated herself to empowering people to lead purpose-driven lives and in Adelaide will speak on the topics of resilience and leadership.

## DR ANDY OWEN

Dr Owen is international technical manager for ICL Turf and Landscape, a role he has held coming up to nine years. He is a sports turf agronomist, with a PhD in environmental soil



*Dr Jim Brosnan maintains an active research program focused on the control of problematic weeds in turf*

science from the University of Wales, Bangor. Prior to joining ICL, Dr Owen worked as a scientific officer for the Sports Turf Research Institute in the UK and following that taught a range of turfgrass science courses at Myerscough College campus of the University of Central Lancashire. During his near nine years there he helped to develop the innovative, industry-leading online teaching provision the respected college currently offers. Dr Owen will be giving an Agronomy Stream talk on soil biology and biostimulants.

## GLENN MANTON

The former Carlton and Essendon AFL footballer will be providing this year's conference-closing keynote address on Thursday. Manton played 178 games in a career that spanned 12 years, including 157 for Carlton where he was part of the club's victorious 1995 Premiership team. Off the field, Manton has spent over 25 years working in educational settings globally and another 20-plus years speaking professionally. He has a Bachelor's degree in Teaching and Education, a Diploma in Mentoring and in 1999 co-founded Whitelion, a not-for-profit organisation assisting youth in crisis. Whitelion works with young people who are in the child protection system due to their experience of neglect and abuse.

Manton's diverse range of experiences also qualifies him to give valuable insights into the worlds of youth culture, the media and the realm of education. He has devised many alternate education and language-learning techniques which he shares with great vigour. His career as an elite sportsman also places him perfectly to provide insights into personal well-being and motivation.

## CONFERENCE SPONSORS

The ASTMA is indebted to the following companies who have committed as partners for this year's Australian Sports Turf Management Conference in Adelaide...

**Toro:** Conference Supporting Partner, ASTMA Golf Championship sponsor.

**Syngenta:** Conference Supporting Partner, National Turf Industry Awards Dinner sponsor and delegate lanyard sponsor.

**Greenway Turf Solutions:** Farewell Bash sponsor.

**Envu:** Delegate satchel sponsor.

**Centaur Asia Pacific/Capillary Flow:** Catering sponsor (napkins).

**Husqvarna:** Phone app sponsor.

**Greenspace Turf Co-op/Tahoma 31:** Stationery sponsor (notepads and pens).

**Brandt/Grigg:** Coffee cart sponsor.



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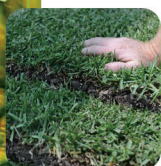
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**Matt Legge, Superintendent, Brookwater Golf & Country Club, QLD**



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**Martin Rose, Course Manager, Ocean Dunes, Tasmania**



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## LOCAL EXPERTS

In addition to our keynote speakers and international guests, a number of leading superintendents and sports turf managers will be presenting in Adelaide. Among them are Australian Open host superintendents Steven Newell (Victoria GC) and Hayden Mead (Kingston Heath GC), Rowan Daymond (The Grange GC), Troy Jordan (Marvel Stadium) and Andy Johnston (Sentosa GC). 2022 ASTMA Award winners Tim Warren

and Monina Gilbey (Glenelg GC – Claude Crockford Award), Lance Knox (Busselton GC – Excellence in Golf Course Management Award) and Nathan Ball (Lynwood CC – Team of the Year Award) will also give presentations.

## AND INTRODUCING OUR MC...

Former Australian cricket and South Australian personality Wayne Phillips will be our conference Master of Ceremonies this year. Phillips played in 27 Tests and 48 ODIs for

Australia from 1982 to 1986 as a batsman and wicketkeeper. After a breakout state career for South Australia, Phillips got his Baggy Green in the 1983/1984 season and joined a select few when he posted a century on his debut, hitting 159 against Pakistan at the WACA.

Over the course of a First Class career that spanned 13 years, Phillips collected plenty of experiences and tall tales that ensure any chance to listen to him speak is both interesting and entertaining. 🏏

# 2023 AUSTRALIAN SPORTS TURF MANAGEMENT CONFERENCE PROGRAM

## MONDAY 19 JUNE

**8.30am:** ASTMA Golf Championships (presented by Toro Australia). Buses depart Adelaide Convention Centre (ACC) 7am. *Royal Adelaide Golf Club*

**11am-4pm:** Registration desk open. *ACC Foyer*

**6.30pm-10pm:** Syngenta President's Dinner and National Turf Industry Awards *Ian McLachlan Room, Adelaide Oval*

## TUESDAY 20 JUNE

**8am-4pm:** Registration Desk open

### PLENARY

*Hall K*

**8.15am-8.30am:** Official conference opening ASTMA president *Ben Tilley* and MC *Wayne Phillips*

**8.30am-9.45am:** Team culture *Mark Carter*

**9.45am-10.30am:** Workplace diversity *Karen Proctor*

**10.30am-11.10am:** Morning Tea

**11.10am-12.10am:** What the future looks like for weed control *Dr Jim Brosnan*

**12.10pm-1.10pm:** Sustainable turf management at St Andrews *Gordon Moir*

**1.10pm-2pm:** Lunch

**2pm-3pm:** Creating a culture of trust *Dr Karen Maher*

**3pm-4pm:** Resilience and leadership *Brooke Hanson*

### TRADE EXHIBITION

**5.30pm-7pm:** VIP Trade Session *ACC Exhibition Hall* (Please note this is for fully registered and Tuesday day delegates only)

## WEDNESDAY 21 JUNE

**8am-5pm:** Registration Desk open

### GOLF STREAM

*Riverbank Room 2-3*

**8.30am-9.15am:** Environmental stewardship *Tim Warren and Monina Gilbey*

**9.15am-9.50am:** Excellence in Golf Course Management Award *Lance Knox*

**9.50am-10.30am:** Flood recovery *Nathan Ball*

**10.30am-11am:** Morning Tea

**11am-12pm:** 2022 Australian Open: Two venues, one tournament *Steven Newell and Hayden Mead*

**12pm-1pm:** Golf course quality standards and sustainability *Chris Gray*

**1pm-2pm:** Lunch and Trade Exhibition

## SPORTSFIELDS STREAM

*Riverbank Room 4*

**8.30am-9.10am:** Sportsfield Graduate of the Year presentation *Patrick Dewhirst*

**9.10am-10.30am:** Strategies for maintaining overseeded sportsfield surfaces/Poa control *Dr Jim Brosnan*

**10.30am-11am:** Morning Tea

**11am-11.30am:** AGCSATech sportsfield rolling trial report *Tim Fankhauser*

**11.30am-12pm:** Managing high volume ground usage *Cameron Sutherland*

**12pm-12.30pm:** Morphettville racecourse redevelopment *Justin Groves*

**12.30pm-1pm:** Curator education

**1pm-2pm:** Lunch and Trade Exhibition

## WORKSHOPS

*Gilbert Suite*

**8.30am-10.30am:** ERI Workshop - Part 1 *Dr Nathan Walker, Dr Percy Wong, Gary Beehag, John Neylan and Bruce Macphee*

**10.30am-11am:** Morning Tea

**11am-1pm:** ERI Workshop - Part 2 *Dr Nathan Walker, Dr Percy Wong, Gary Beehag, John Neylan and Bruce Macphee*

**1pm-2pm:** Lunch and Trade Exhibition

## PLENARY

*Riverbank Room 2-3*

**2pm-3pm:** Staff attraction and retention

## TRADE EXHIBITION

**3.30pm-4.15pm:** St Andrews Q&A and 'A Greenkeeper's Tale' book launch *Gordon Moir and Richard Forsyth*

## ASSOCIATION

*Riverbank Room 2-3*

**5pm-5.30pm:** 2023 Australian Sports Turf Managers Association Annual General Meeting

## THURSDAY 22 JUNE

**8am-2.30pm:** Registration Desk open

## AGRONOMY STREAM

*Riverbank Room 2-3*

**8.30am-9.30am:** Integrated pest management and strategies for improving disease control *Dr Nathan Walker*

**9.30am-10am:** Long range weather outlook for Australia *Neil Bennett*

**10am-11am:** Morning Tea and Trade Exhibition

**11am-11.40am:** Sentosa Golf Club: Toward carbon neutral *Andy Johnston*

**11.40am-12.20pm:** AGCSATech couchgrass trial update *Bruce Macphee and Tim Fankhauser*

**12.20pm-1pm:** Soil biology and biostimulants *Dr Andy Owen*

**1pm-2.30pm:** Lunch and Trade Exhibition

## MANAGEMENT STREAM

*Riverbank Room 4*

**8.30am-9.15am:** Staff management *Gordon Moir*

**9.15am-10am:** Finders keepers - Attracting, retaining and training apprentices *Jeff Powell*

**10am-11am:** Morning Tea and Trade Exhibition

**11am-11.40am:** Managing teams while transitioning across multiple events *Troy Jordan*

**11.40am-12.20pm:** Tournament communication - Managing all stakeholders before, during and post event *Rowan Daymond*

**12.20-1pm:** Creating a people plan for your team - Staff training/growth and development

**1pm-2.30pm:** Lunch and Trade Exhibition

## WORKSHOPS

*Gilbert Suite*

**8.30am-10.30am:** Poa annua and Resistance Workshop - Part 1 *Dr Jim Brosnan, Jyri Kaapro, John Neylan, Dr Peter Boutsalis and Bruce Macphee*

**10.30am-11am:** Morning Tea

**11am-1pm:** Poa annua and Resistance Workshop - Part 2 *Dr Jim Brosnan, Jyri Kaapro, John Neylan, Dr Peter Boutsalis and Bruce Macphee*

**1pm-2pm:** Lunch and Trade Exhibition

## PLENARY

*Riverbank Room 2-3*

**2.30pm-3.30pm:** End of conference keynote - Communication is key *Glenn Manton*

## SOCIAL

**6pm-8pm:** Farewell Bash, presented by Greenway Turf Solutions *Lion Art Factory* (Open to all delegates and Farewell Bash ticket holders)

**Please Note:** Times, topics and speakers listed were correct at the time of this edition going to print. Please refer to the conference app and/or the boards inside the Adelaide Convention Centre for any updates or changes to the program.





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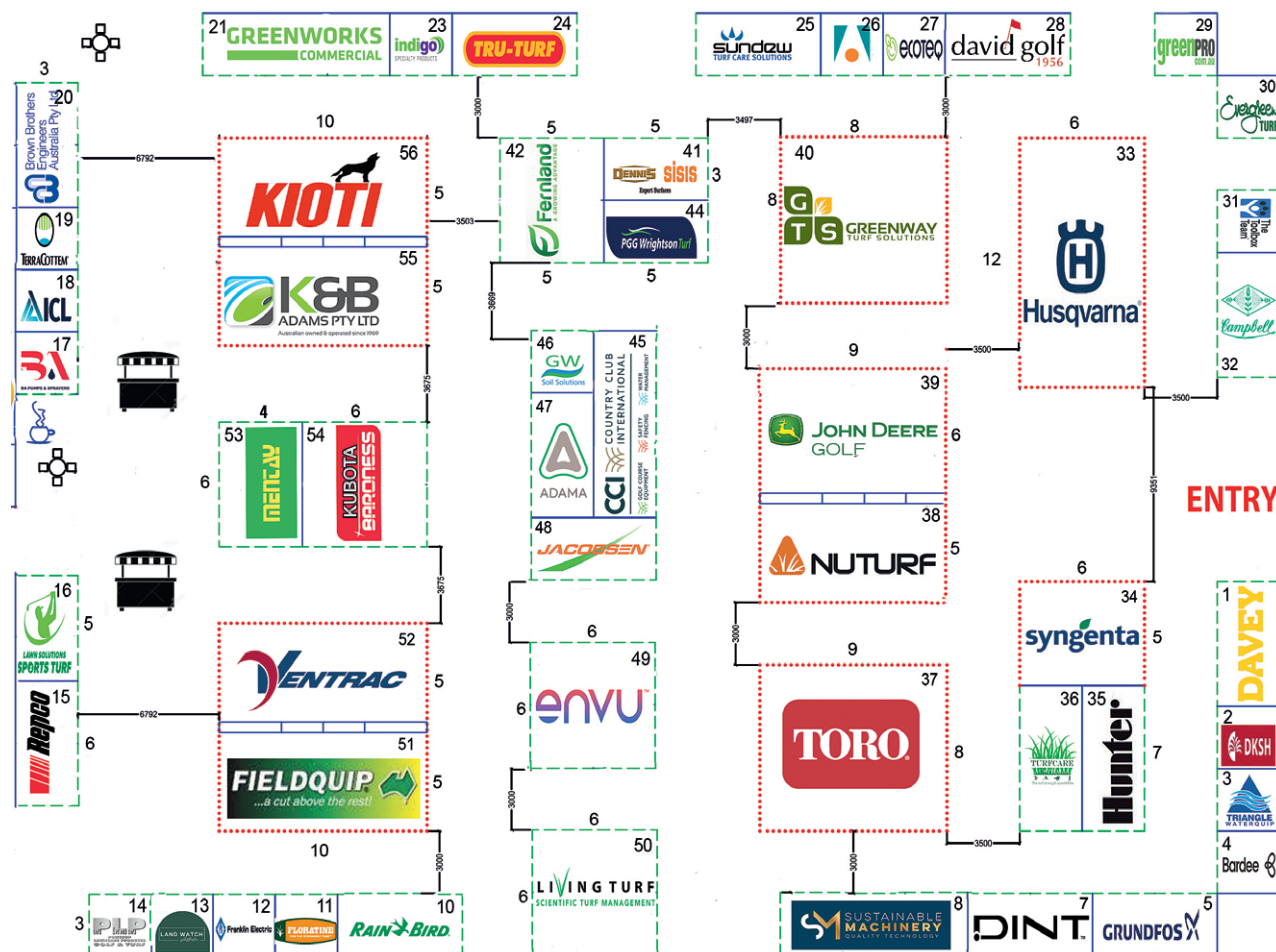
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# 2023 AUSTRALIAN SPORTS TURF MANAGEMENT CONFERENCE

## TRADE EXHIBITION FLOORPLAN (ADELAIDE CONVENTION CENTRE, 21-22 JUNE 2023)



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- 34 Syngenta Australia

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- 44 PGG Wrightson Turf
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- 24 Tru-Turf

- 27 Eco Teq
- 29 GreenPro (Quick Corp)
- 30 Evergreen Turf Group
- 31 The Toolbox Team
- 36 Turfcare Australia
- 41 Dennis, SISIS, Green Workx
- 42 Fernland Agencies
- 46 Green Ward Soil Solutions
- 53 Mentay Steel Fab Constructions
- 56 PFG Australia (Kioti)

### CANCER COUNCIL SA

Cancer Council SA will also be in attendance, educating delegates about the risk of skin cancer. Whether you're an interested individual or wanting policy advice for your workplace, reps will have a variety of free resources on sun protection and working safely outdoors.

### EXHIBITION OPENING TIMES

Wednesday 21 June (9am-5pm) and Thursday 22 June (9am-2.30pm). Stand numbers and location were correct at time of going to print.







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# Royal ready

On behalf of The Royal Adelaide Golf Club, we welcome all players contesting this year's ASTMA Golf Championship, sponsored by ASTMA Platinum Partner Toro Australia. It will be almost 20 years to the day since Royal Adelaide last hosted the ASTMA's premier golfing event and we look forward to welcoming a 92-strong field as they vie for the coveted Toro Red Jacket.

Looking at the draw, it should be a very hotly contested event. We have a number of past winners teeing up, among them defending champion Shaun Page (Southern GC, Vic), Brent Hull (Moruya GC, NSW), Anthony Toogood (Seven Mile Beach, Tas), Chris Burgess (Yarrowonga Mulwala Golf Resort, NSW) and 2021 champion Jordan Sherratt (South Lakes GC, SA).

*Royal Adelaide superintendent  
Nathan Bennett and his crew are  
gearing up to host the 2023 ASTMA  
Golf Championship*



Royal Adelaide holds a unique place in the Australian golf landscape. It was founded in 1892 by a group of local golf enthusiasts who played their golf around the parklands of the city. In 1906 the members obtained the land the course currently resides on and quickly laid out the course. In 1926, the club appointed Dr

Alister MacKenzie to come up with plans for a redesign of the course. While they did not adopt all of his changes, he definitely left an indelible mark on the layout and design.

During the late 1980s and 1990s, Peter Thomson had some influence on the course, lengthening it, putting in drive bunkers and predominately making the course more difficult for professional golf. In turn, this impacted the typical member as well. Over the years the club has held many events, including nine Men's Australian Opens, three Women's Australian Opens, the World Amateur Team Championship and numerous state events.

In the mid-2000s OCCM was appointed as course architect and carried out works on a poorer hole which wasn't well received by the members. In 2012 Tom Doak from Renaissance Golf Design (RGD) was





*Royal Adelaide Golf Club holds a unique place in the Australian golfing landscape and is renowned for its spectacular terrain and superbly presented turf surfaces*

round and afterwards in the clubhouse. The famed short par four 3rd is driveable, but with a blind tee shot and narrow entry to the green it is a classic risk-reward prospect (see photo below). The 11th 'Crater hole' and par three 7th with its distinctive bunkering around the front of the green are also among the unique holes we are blessed to have here.

Our water sources comprise of four bores. We only use three and they can supply us with around 42 litres per second. We also have an ASR (Aquifer System Recharge) which consists of around 2ha of man-made wetlands that receive stormwater at a rate of 250L/s during a rain event. This water passes through the waterways and once cleaned is then pumped down around 130m-150m into the aquifer. Each year we can inject between 140 and 200 megalitres of water which effectively drought-proofs the course for many years ahead.

The staff at Royal Adelaide are a mixture of well experienced greenkeepers and apprentices. The team consists of 14 full-time staff, including a mechanic, irrigation tech, two horticulturalists and three apprentices. I started as superintendent here in November 2011, while assistant superintendent Andrew Fraser has been at the club for 16 years and in the assistant role for the past 10. Course foreman David Meadows, who was part of this year's Future Turf Managers Initiative cohort, has been in that role for two years and has worked at the club for eight.

We have one female on staff, Sophie Hamdorf. She is the first female apprentice to be employed by the club and last November became our first qualified female greenkeeper. To Sophie's credit, she works extremely well within a male-dominated environment and such is her calibre that she recently won the Turf Management South Australia Graduate of the Year Award and will contest this year's final of the ASTMA Graduate of the Year Award.

We hope that you enjoy Royal Adelaide, the playing surfaces and the rest of the conference week in Adelaide.

**Nathan Bennett**  
Superintendent, Royal Adelaide GC



*Royal Adelaide's iconic short par four 3rd*

appointed as the new architect and since then the club has rebuilt the polarising 17th hole and made many smaller alterations elsewhere. Most of these have been subtle, predominantly widening the short cut grass areas, joining fairways and blending the surrounds in with tees. As an estimate, over the past 11 years we have expanded our short cut areas by around four hectares. RGD's philosophy here is to not rebuild the course but enhance what we have and fix the areas that are not up to standard.

Next summer we are looking to conduct works on the par four 10th. This will include expanding the green slightly to increase the number of pin locations, pushing the fairway to the left to reduce the chance of balls leaving the property and creating additional fairway bunkers for the same reason. There will also be some additional works to bunkers and tees.

## QUIRKY AND UNIQUE

For those who haven't played Royal Adelaide before, the first thing that stands out is the trainline that runs through the course. It essentially cuts the course in half and runs just seven meters from the clubhouse. You will undoubtedly see it, as it passes through every 15 minutes.

You will also see how flat much of the course is. Nine of the holes lay on the flat, heavy soil that surrounds the dunes, while the other nine sit on top of the sand that runs through the middle of the course. Managing the two distinct soil types in winter creates some challenges for us, particularly during wet periods.

There are some real quirky and unique holes and features at Royal Adelaide that I'm sure will create some discussion during the

PHOTO: RAGC/GARY LISBON





# Graduate contenders

*ATM profiles the state finalists for this year's ASTMA Graduate of the Year Award and Toro Sportsfields and Grounds Graduate of the Year Award.*

**T**he country's leading apprentice turf managers will come together in Adelaide for the announcement of the respective ASTMA (golf) and Sportsfields and Grounds Graduate of the Year Awards, presented by ASTMA Platinum Partner Toro Australia. In 2022 it was representatives from Western Australia and South Australia who took home the honours in Melbourne, with Jon



Christmass (Lakelands CC, WA) and Patrick Dewhirst (SACA, SA) heading home very strong fields.

The last time the annual conference was in Adelaide in 2011, it was the Victorian graduates who scooped the pool, with Dan Oswin winning the golf and Rebecca Dynon becoming the first recipient of the sportsfield and grounds award. Royal Adelaide Golf Club's Sophie Hamdorf (*pictured above*), one of this year's finalists, will be aiming to follow in

Dynon's footsteps and become the first female in 28 years to win the ASTMA Graduate of the Year Award.

The conference will begin early for this year's graduate cohort, with judging set to take place on Sunday 18 June followed that evening by a group dinner. All finalists will be required to prepare a presentation about their time in the sports turf industry to date, their commitment to work, achievements (both at work and study) and their future aspirations. They will then be quizzed by the judging panel on a series of technical and general questions to further ascertain their level of knowledge and proficiency.

The winner of the award will be announced during the National Turf Industry Awards dinner, sponsored by ASTMA Gold Partner Syngenta, which will be held at Adelaide Oval on the Monday night of the conference. ATM congratulates all finalists and wishes them well for the judging...





PHOTO BRETT ROBINSON

*Royal Adelaide Golf Club's first ever qualified female greenkeeper Sophie Hamdorf will be flying the flag for South Australia in the final of ASTMA Graduate of the Year Award*

short time since starting there, Fulcher has picked up many new skills and is also in the process of completing his Diploma of Sports Turf Management. Fulcher has also been a top representative soccer player for the past decade, playing with the Maroochydore Football Club and the Sunshine Coast Fire. In 2018 he represented the U18 Australian youth team in the International Xiamen Tournament in China where he took home the Golden Boot and Players' Player awards.

## SOPHIE HAMDORF

Royal Adelaide GC | TMSA



It has been a huge 12 months for Sophie Hamdorf and one she will be hoping to cap off in her home state by becoming the first female to win the ASTMA Graduate of the Year Award. Hamdorf was the first female apprentice to be employed at Royal Adelaide Golf Club and last November officially became the club's first qualified female greenkeeper. During her apprenticeship, Hamdorf was fortunate to be part of a couple major amateur and professional tournaments, among them the Women's Australian Open that Royal Adelaide hosted in early 2020. Last December, Hamdorf was also part of the crew for the 2022 ISPS Handa Australian Open, stationed at tournament co-host Victoria Golf Club for the week where she was on tees and surrounds mowing.

In early March, Hamdorf was one of four successful applicants to be part of the ASTMA's Women in Turf Strategy work placement opportunity at The Athena tournament. Hamdorf travelled to Sandringham Golf Links in Melbourne where she helped assist superintendent Gerri O'Callaghan and her team in preparing the course for the WPGA event. Hamdorf undertook a range of course works across the four-day placement, including cutting Sandringham's unique Suttons Mix greens.

## JACKSON LANNING

Killara GC | NSWGCSA



The recently-announced NSWGCSA Vince Church Graduate of the Year Award recipient, Jackson Lanning worked in the hospitality industry for nine years before deciding to look at other opportunities and challenges. With a love for the game of golf and an interest in the industry, Lanning took an apprenticeship role at Killara Golf Club in Sydney under superintendent Ryan Fury. With the course embarking on a full reconstruction, it proved to be the perfect

learning environment for Lanning who was part of the course construction crew.

"During our course redesign and works, I was able to learn and gain so much experience in many different areas of golf course construction," reflects Lanning. "To see how far the course has come since and help oversee its development is certainly something I am very proud of." Lanning is currently the second assistant under Fury and also has the responsibility of being the club's irrigation technician. Lanning says he relishes the daily challenges that golf course turf management brings and loves the satisfaction it provides when everything comes together and the course is presented at its absolute best.

## SOLLY MARSHALL

Kingston Heath GC | VGCSA



While Victorian graduate representative Solly Marshall may reside at one of the Melbourne Sandbelt's most iconic courses, he is very much a country lad at heart. Growing up in the regional town of Nhill, Marshall says he got into the sports turf industry because he liked how rewarding it can be and producing a product for everyone to enjoy. Also the opportunity to ply the trade on courses overseas appealed and Marshall is keen to explore that avenue in the future.

Marshall's first forays into turf management came at Nhill Golf Club about five years ago, when he started volunteering cutting fairways and helping out the course maintenance team. That led to an apprenticeship at Kingston Heath Golf Club under superintendent Hayden Mead and completing his studies through Holmesglen TAFE. Marshall topped his course work at each year level and duly received the VGCSA Apprentice of the Year Award. In doing so he was afforded the opportunity to head to New Zealand in April to be part of a week-long work experience opportunity. While there, Marshall spent time at Tara Iti and Tieke Golf Estate and also got to experience sports turf management operations at Hamilton's Seddon Park (cricket) and FMG Stadium (rugby union).

## RILEY WILLCOX

Gold Creek CC | ACTSTMA



A passion for golf from a young age and having an appreciation for horticulture through his father, it was somewhat inevitable that ACTSTMA graduate representative Riley Willcox was destined for a career in golf course management. Catching the golf bug from his grandfather, at the age of 12 Willcox joined the Jack Newton Junior Golf (JNKG) program through the South East Sport Academy. At the age of 17, he was nominated for the leadership role of captain for the ACT School Sport Program for golf.

## ASTMA GRADUATE OF THE YEAR

### DANIEL FULCHER

Maroochy River GC | GCSAQ



"I love this industry and can't see myself leaving." That's how GCSAQ graduate representative Daniel Fulcher (21) describes the industry which has been a part of his life since 2019. After graduating from school, Fulcher took on an apprenticeship at Maroochy River Golf Club under superintendent Stuart Campbell. During that time Fulcher has furthered his appreciation of the turf industry and with the assistance of Campbell has pushed himself to be the dedicated turf professional he has become. Along the way he has made many new friends and also volunteered at a number of PGA events in Queensland.

This past November, Fulcher broadened his horizons and moved to the Northern Beaches of Sydney where he has taken on the role of foreman at Elanora Country Club under superintendent Jake Gibbs. In the



After finishing Year 12 at St Francis Xavier College, where he completed a Certificate II in Sports Orientation through NSW TAFE by correspondence, Willcox began a turf management apprenticeship through Canberra Institute of Technology and Gold Creek Country Club. There he works alongside superintendent Simon Snedden and his brother Luke Snedden, both former national graduate award finalists.

"My motivation is simply my love and passion for the industry, making a difference and being surrounded by the knowledgeable superintendents around Canberra," says Willcox. "Their hard work and dedication to the industry has led me to being committed to keeping my head high and to continue to work hard to hopefully follow in their footsteps."

## JAYDEN ZAPPELLI

**Kalgoorlie GC | GCSAWA**



Western Australia representative Jayden Zappelli will be hoping to follow in the footsteps of 2022 ASTMA Graduate of the Year winner Jon Christmass who became the third graduate from the West in 27 years to win the national award. Zappelli began his journey as a greenkeeper in 2018 when he took on a casual role at Kalgoorlie Golf Course and once finishing school took on an apprenticeship there. During his time at Kalgoorlie, Zappelli has prepared the course for a number of WA PGA Championships and was also a course volunteer at last December's ISPS Handa Australian Open at Victoria Golf Club in Melbourne.

"I wanted to be in the turf industry because I love sports, but also wanted a job where I could be outside and have a good work-life balance," says Zappelli. "I fell in love with the turf industry after learning about the possibilities of travel and the many pathways you can choose. I also love the extremely satisfying work and the excitement of no two days being the same. My role at Kalgoorlie Golf Course is to perform day-to-day tasks and lead the other workers with my experience. I wish to progress with my skills and perhaps take on higher roles and gain further management experience."

## SPORTSFIELDS AND GROUNDS GRADUATE OF THE YEAR

### LACHIE DEEP

**Garangula Polo Club | ACTSTMA**



Twenty-two-year Lachie Deep started his turf management career in 2019 at Garangula Polo Club which is located near Harden, north east of Canberra. A career in turf came naturally for Deep because of his love for golf and he has now progressed

through the fourth year of his apprenticeship there. More recently, Deep has been given the opportunity to work independently, with his boss allowing him to oversee a specific area at work. That has seen Deep formulate budgets and prepare his own nutrition, pest and disease management programs. Deep is relishing that additional responsibility which he hopes will allow him to move up to a 2IC position where he hopes to build on his people management skills.

"I absolutely love my job and wouldn't have it any other way," says Deep. "A career highlight for me was being nominated for Apprentice of the Year last year. The nomination showed me that I'm doing well and motivates me to be the best I can be within my job. My favourite part about turf management is working hard leading up to a tournament and taking pride in the end result, especially hearing from people that they are pleased with the fields we have produced."

### KIERAN GOWDIE

**Christ Church Grammar School | STA WA**



If you are a follower of the Western Australian Football League (WAFL), then chances are you may have heard of this year's Western Australian sports field graduate candidate. For the past three seasons, 200-centimetre, 104-kilogram ruckman Kieran Gowdie has kitted up for the Claremont Tigers Football Club, playing in the Reserves and League teams. Gowdie began his turf journey as a trainee in 2020, doing a Certificate III in Horticulture at Christ Church Grammar School. Completing that in 2021, he immediately started a sports turf management apprenticeship at the same place.

"My love of turf comes from my background of doing multiple sports as a young kid and being a WAFL player at Claremont," says Gowdie. "That encouraged me to finish my apprenticeship and produce the best playing surfaces possible, as I know what it is like when the surface isn't the best quality. I'm currently employed full-time with the grounds management team and I'm hoping to become a 2IC soon. The satisfaction of a finished oval ready for play is what makes me keep striving for the best-looking field I can produce."

### JAMES OPHIR

**Lake Macquarie City Council | STA NSW**



STA NSW representative James Ophir began his turf career in golf, taking on a groundsman role at Pacific Dunes back in 2014. Working there for three years, he picked up skills in machinery operation as well as a good work ethic. Moving to Waratah Golf Club for the next three years, Ophir met some

great work mates and learned more skills and tricks of the trade from some of the more experienced staff.

In January 2020 Ophir accepted an apprenticeship with the City of Newcastle where he was able to complete his Certificate III in Sports Turf Management. During that time he progressed to being a senior field worker where he was able to lead a small team, as well as manage spraying and irrigation programs. Upon completion of his apprenticeship, Ophir moved to Lake Macquarie City Council and for the past six months has been a sportsfield assistant under supervisor Greg Askew. "I love my job and it's what I was born to do," says Ophir. "It feels more like a hobby than a job and I'm blessed that I get to do this every day."

## MARK SHAW

**Sunnyside Turf | TMSA**



Originally from Invercargill in New Zealand, Mark Shaw's family moved to Bordertown in South Australia when he was five. By his own admission, Shaw realised when going through his school years that he was far better off doing hands-on tasks instead of writing essays, and when the opportunity came up to do an apprenticeship at Sunnyside Instant Lawn he decided to take it. Even though not really knowing the industry, he dove in headfirst and hasn't looked back.

Shaw is a keen footballer for the Bordertown Football Club reserves and loves the camaraderie of being involved in the club. "I am a very outgoing person and love to bring a positive energy whether it be at work or outside of work," says Shaw. "I love to have fun and make the people around me laugh. Smiling and laughter is 100 per cent the most important thing in my daily routine. I love my job with a passion. I can't get past the smell of freshly cut grass – it releases endorphins and creates a relaxed atmosphere; it doesn't get much better than that."



### Editor's Note: Angus Vear

(pictured) from Blundstone Arena in Hobart, will represent the Tasmanian Sports Turf Managers Association in the Sportsfields and Grounds Graduate of the Year Award. Vear is currently overseas undertaking a work placement opportunity. At the time of this edition going to print, STA Queensland and STA Victoria were still to confirm their graduate award nominations. 🏆

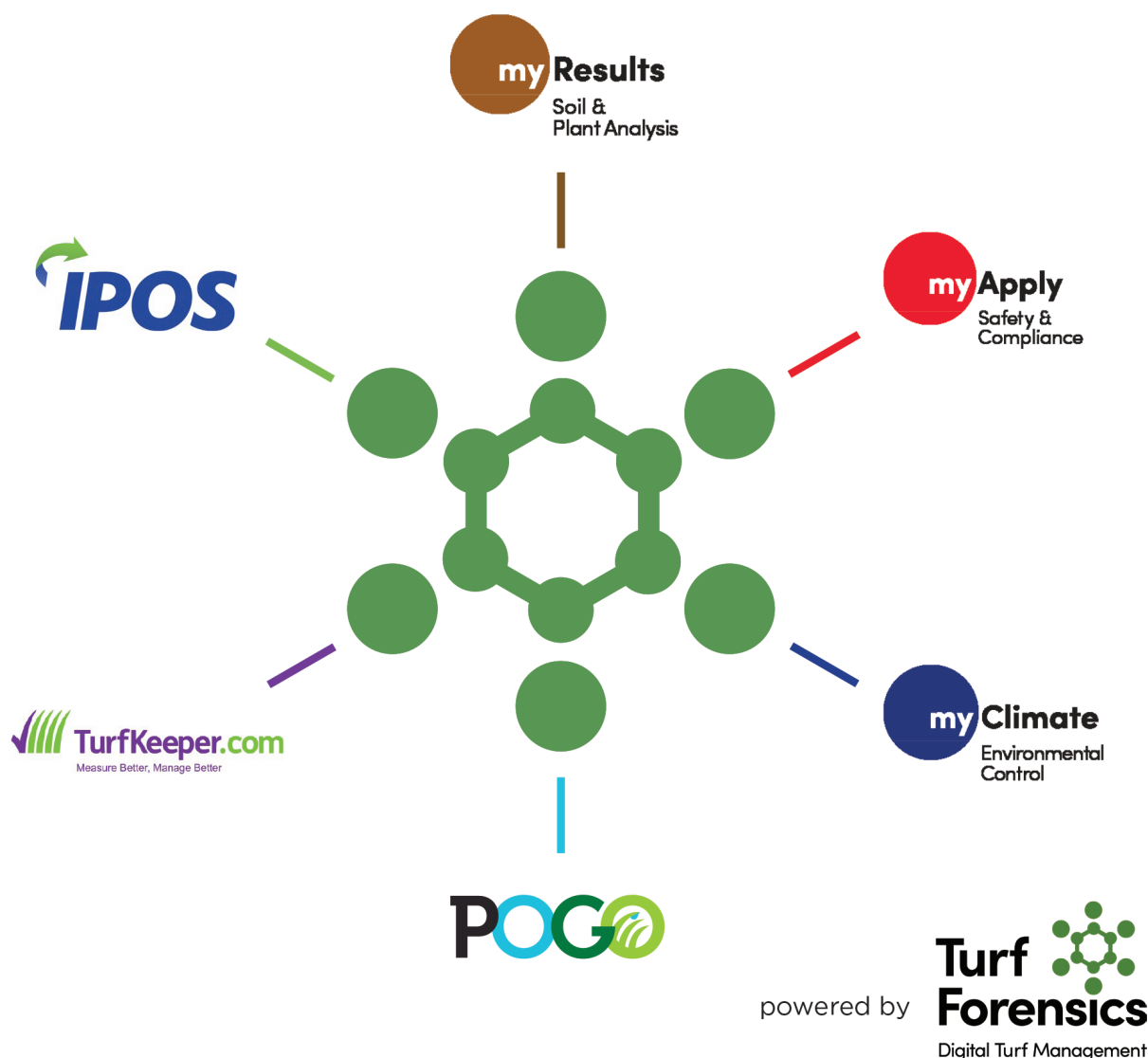




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# Poa patterns

*John Neylan looks at the key findings from a three-year trial looking at the life cycle of *Poa annua*. He also checks out the advent of Major League Cricket in the USA and reflects on a recent article by Peter McMaugh AM.*

Over the past three years I have been exploring more closely the growth patterns of *Poa annua* in couchgrass turf. As a general premise, we have considered the life cycle of *Poa annua* to consist of germination in the autumn, growth and maturation through the winter months, flowering in late winter/early spring and then senescence in the late spring/summer months.

This is a simplistic annual life cycle, however, anecdotal evidence in the field indicates that the autumn appearance of *Poa annua* was more than new germinations. The 'autumn flush' of *Poa annua* consists of new germinations and the appearance of mature

plants that were protected within the couch layer during the summer months.

The research of Carroll et. al. (2021 and 2022) has challenged the established concepts of annual and perennial forms of *Poa annua* and that environment rather than genetics may give rise to differences in life cycle. Carroll et. al. (2022) demonstrated that *Poa annua* is similar to other perennial, C3 turfgrass species that are subject to multiple environmental factors that can cause mortality.

In my research, the questions I had were:

- Over what period of time did *Poa annua* emerge?
- Did *Poa annua* plants persist throughout the summer months?

- When was peak emergence?
- What were the environmental conditions favouring emergence?

To answer these questions, a trial area was established on a Santa Ana couchgrass lawn maintained at a cutting height of 15-20mm which received enough irrigation to prevent drought stress and fertilised twice a year with either urea at 100kg/ha or an NPK (8:1:7) fertiliser at 300kg/ha. There were six plots, each 2116cm<sup>2</sup> in area, where the number of plants and the percent area covered were counted every 2-4 weeks.

The results were compared against:

- Average daily temperature;
- CDD21C – Cooling Degree Days accumulated from the summer solstice using a 21°C base temperature;
- Soil moisture; and
- Soil temperature.

This trial has been running for a period of three years now and a lot of data has been collected. What follows is a summary of the key findings.

## POA ANNUA LIFE CYCLE

The emergence of *Poa annua* followed a definite annual life cycle with emergence occurring in the autumn, a period of maturity where the individual plants increased in size and then senescence in the late spring/early summer (Figure 1). The following observations are made:



**Opposite: Recent research has challenged the established concepts of annual and perennial forms of *Poa annua* and that environment rather than genetics may give rise to differences in life cycle**

- The first emergence of plants occurred around late February/early March providing there was adequate soil moisture.
- The peak emergence occurred at 20, 16 and four weeks after first emergence in 2021, 2022 and 2023 respectively (Figure 2). It is hypothesised that as the number of plants and seeds increased there was an increase in the rate of emergence due to some competitive factor and a 'fight for space'.
- As would be expected, the maximum per cent area covered by *Poa annua* lagged behind the emergence (Figure 1).
- Over the study period there was an exponential increase in the maximum number of *Poa annua* plants (Figure 2).
- There were no plants persisting through the summer months, most likely due to the minimal water applications.
- There was no germination/emergence of *Poa annua* in the spring.
- There was a natural decline in the early-mid spring following flowering irrespective of the weather conditions. In the late spring, irrigation or rainfall tended to temporarily slow senescence.

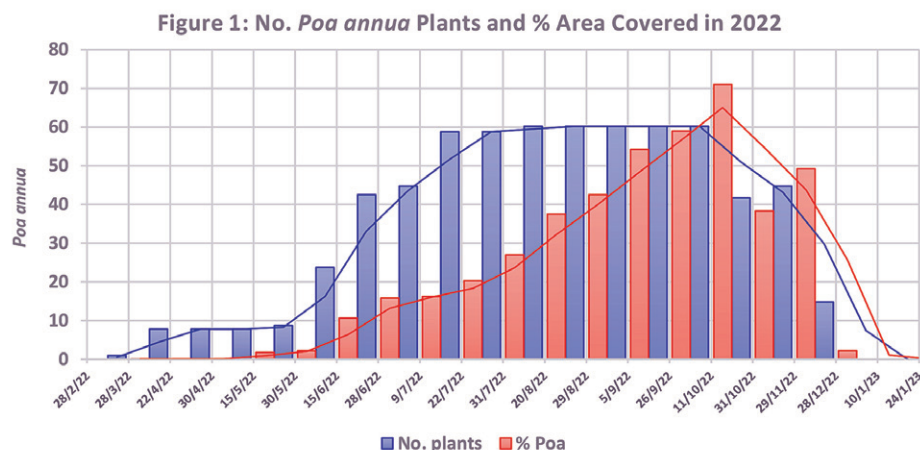
## POA ANNUA EMERGENCE VS AMBIENT, SOIL TEMPERATURE

Over the three-year study period (to date), *Poa annua* emergence was most affected by ambient temperature. The emergence commenced when the average daily temperature dropped below 22°C in 2021 and 2022 and below 24°C in 2023 (Figure 3).

Kaminski and Dermoeden (2007) monitored emergence patterns over four years where most of the germination occurred over approximately a four-week period in the autumn with no germinations in the spring. The mean daily temperatures were generally ≤20°C during peak emergence and was stimulated by rainfall. Soil temperature has only been recently measured and the data indicates that emergence commences at soil temperatures less than about 22°C (Figure 4).

## POA ANNUA EMERGENCE VS COOLING DEGREE DAY21

There was a very strong relationship between *Poa annua* emergence and the CDD21 with emergence occurring at about 200 cumulative CDD21 and peaking at 900-1100 CDD21 (Figure 5). Flowering also responded consistently with the Growing Degree Day10 model with flowering commencing at 600 cumulative GDD10 and peaking at 1250 GDD10.



## CONCLUSIONS

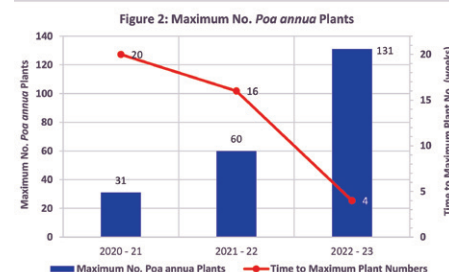
The key points from this research are:

- This site is kept lean and the summer conditions are allowed to cause senescence to occur with no plants persisting through the summer months. The situation will be different on sites where there is regular irrigation.
- Once the average daily ambient temperature drops below 22°C emergence can be expected. The timing of pre-emergent herbicide applications should take this into consideration to ensure there is no gap between applications that will allow *Poa annua* to establish.
- The CDD model also provides a tool for understanding how the herbicide program can be managed to best effect.
- If one year of herbicide applications is missed, the *Poa annua* numbers have the potential to double. This research demonstrates that the increase in *Poa annua* numbers is exponential with a potential for an annual doubling of the population.
- Where the *Poa annua* numbers are relatively low and potentially the seed bank is small, the emergence of seedlings may be staggered over several weeks. This is consistent with previous studies undertaken of different biotypes (ATM Volume 23.4 – 'Seed bank of knowledge', pages 46-49) where there were three pulses of germination over a 42-day period. The ramifications are that the pre-emergent herbicide program needs to be such that it not only covers the first germination but over the extended period. Again, don't allow any windows of opportunity for emergence to occur.

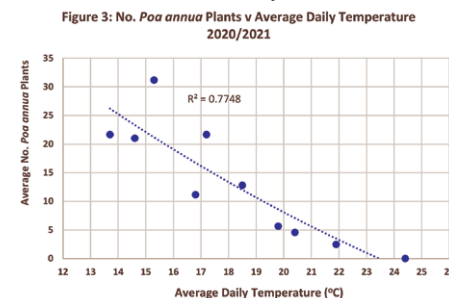
## MAJOR LEAGUE CRICKET'S AUSTRALIAN CONNECTION

Cricket is about to hit the USA with the inaugural Major League Cricket (MLC) tournament to be played this July. It will be a T20 tournament featuring six teams with most of the games to be played at the repurposed

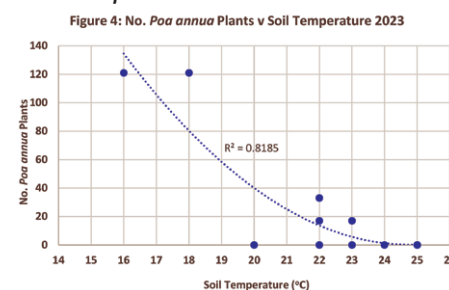
**Figure 1. The emergence of *Poa annua* followed a definite annual life cycle**



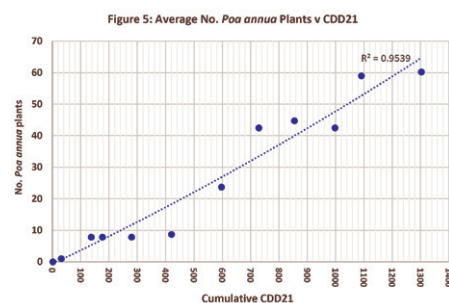
**Figure 2. There was an exponential increase in the maximum number of *Poa annua* plants**



**Figure 3. *Poa annua* emergence was most affected by ambient temperature.**



**Figure 4. *Poa annua* emergence commences at soil temperatures less than about 22°C**



**Figure 5. There was a very strong relationship between *Poa annua* emergence and CDD21**





**SPORTENG's Cameron Stevenson receiving his US cap**

Grand Prairie Stadium near Dallas, Texas. Cricket in America is a concept that couldn't be imagined a few years ago, however, the pace of T20 cricket is expected to have appeal to the American audience and in particular the ex-pat community of the cricketing nations around the world.

Melbourne-headquartered SPORTENG has been providing technical advice to the US team responsible for developing the purpose-built cricket ground that was once used for baseball. This newly renovated cricket-specific stadium features 7200 seats and a turf wicket that meets international standards. The SPORTENG team was initially engaged to provide:

- Client-side technical input including peer review of the initial design and construct documentation for the oval.
- Produced initial quality control specifications re: frequency of material testing, as-built survey checks, etc.



**The Grand Prairie Stadium wicket square consists of a 125mm-deep USGA sand layer with a 150mm compacted clay layer. The clay is Pro's Choice ProMound which is used to build pitcher mounds for baseball**

- Detailed design and documentation for the centre turf wicket block.
- Full design for the oval including the profile, drainage, irrigation and perimeter infrastructure works.
- Construction phase support to client side.
- Detailed design and documentation of the adjacent turf practice wickets.

Among the challenges of working on the other side of the world is not only the difference in time zones but the imperial vs metric system of measurement.

Part of the SPORTENG technical team on this project has been civil engineer Cameron Stevenson. Cameron is a 1st Grade cricketer with the Carlton Cricket Club which competes

in the Victorian Premier Cricket competition. Cameron is an Australian-born American who also represents the United States cricket team. He is a right-handed batsman and right-arm fast medium bowler and in the past has played for the Melbourne Renegades in the BBL and Sheffield Shield for Tasmania.

Cameron was first named in the US squad for the 2019-20 Regional Super50 tournament and has played in several T20 and One-Day International (ODI) tournaments. The Texas Super Kings selected Cameron for the upcoming tournament which will feature the likes of Australian white ball stars Aaron Finch, Marcus Stoinis and Mitchell Marsh.

The Aussie connection doesn't just end there. Another Australian, David Agnew, is the head curator at Grand Prairie Stadium and has played a key role in developing it into a world-class cricket venue. David originally hails from Adelaide where he undertook his apprenticeship in turf management and worked at Scotch College and part-time at the Adelaide Oval.

On the prompting of his mentors, he headed overseas and worked a number of years in New Zealand. He began by working with Mark Perham of FieldTurf NZ at QBE/North Harbour Stadium (Auckland) and then did two years working at Seddon Park in Hamilton as a senior curator under Karl Johnson. During this time he helped to prepare wickets for Test matches, ODIs and T20s and New Zealand's domestic competition for Northern Districts.

Through his association with Mark Perham, David went on to prepare natural turf wickets and outfield in Florida, North Carolina and Toronto (all drop-in wickets) for various T20 tournaments and ICC qualifying events. David has also been a pitch and field consultant for the Caribbean Premier League.

**Grand Prairie Stadium was previously a baseball venue with a synthetic turf outfield. Once reconstructed, it will have eight Latitude 36 bermudagrass wickets (pictured) and a new TiffTuf couchgrass outfield**





David has played a major role in the design of the Grand Prairie Stadium wicket profile, selecting the clay and choosing the grasses for the wicket and outfield. With the major works nearing completion as this edition was going to print, David will then pull everything together and prepare the playing surfaces for the MLC tournament.

The Grand Prairie Stadium has been constructed as a 275mm-deep sand profile with an extensive network of subsoil drains. The wicket square is comprised of eight pitches and consists of a 125mm-deep USGA sand layer over the subgrade with a 150mm compacted clay layer. The clay is Pro's Choice ProMound clay which is used to build pitcher mounds for baseball. This same material has been used on the wickets squares in Florida and North Carolina and has a 60-65 per cent clay content that is consistent and exhibits minimal cracking during hot weather.

The wicket table has been grassed with Latitude 36 bermudagrass and was selected for its heat and drought tolerance, disease resistance and strong recovery from wear. The turf was laid in late November 2022 and had a month of reasonable weather before the Texas winter set in. Once the grass began to grow in the spring it was scarified/verticut in 15 different directions, topdressed and laser levelled and is now in preparation mode.



PHOTO: AERIAL PHOTOGRAPHY INC

The reconstructed Grand Prairie Stadium in Texas will host a Major League Cricket T20 tournament this July

The outfield is being grassed with TifTuf bermudagrass which is well known in Australia as being a high-density variety that is expected to provide a fast outfield for international cricket. The project suffered some early delays due to wet weather and the outfield turf was being laid in late May as this edition was going to print. It is a tight program, however, the turf maintenance team are confident that it will be ready for the July tournament.

## WISE WORDS

Peter McMaugh AM has always been able to hit the nail on the head and say what many of us are thinking but generally not brave enough to say. In his recent article in ATM Volume 25.2 'Pie charts and performance', he raised the subject of "what appears to be new is just an old concept wrapped up in new packaging". How right he is! Having personally been in the turf industry for nearly 40 years, the

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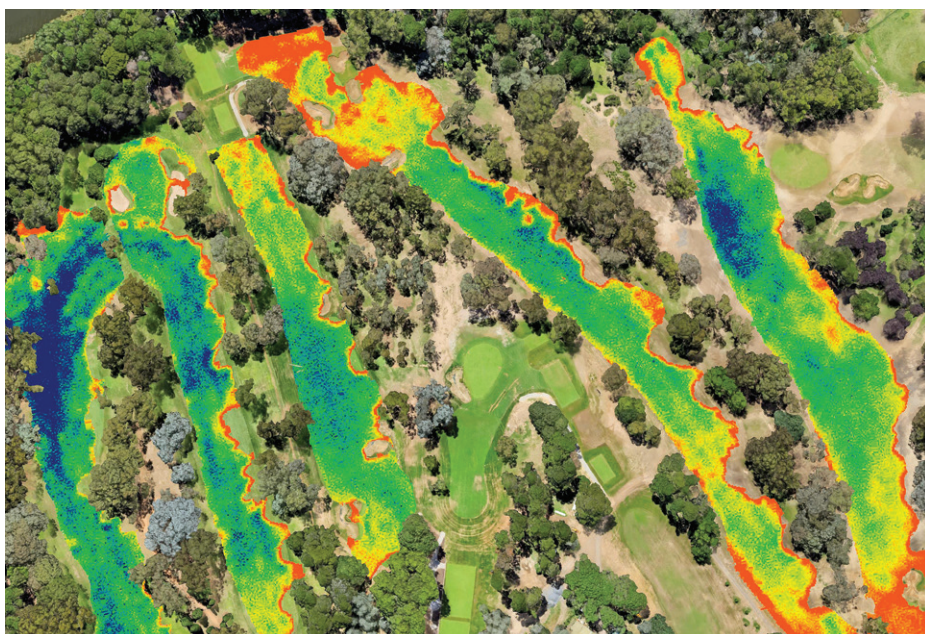


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basic fundamentals haven't changed and old problems often emerge as "never before seen concerns". The packaging each time seems to get shinier and promising more and usually with a greater cost attached.

The factors that affect turf and playing surfaces have been the same for decades, with poor construction, inadequate irrigation, organic matter accumulation, soil compaction and poor drainage often being the root cause of poor playing surfaces. What has changed is the many tools now available to assess turf and to provide an objective assessment method alongside our visual observations. These include soil testing, drones, satellite technology, NDVI meters and Clegg hammers. These tools are all useful, however, it still requires an experienced agronomist to relate the data to the field observations. Data by itself, no matter how magnificently it is presented, without context is useless. This is also true for poorly interpreted information.

As Peter rightly points out, we can now produce a lot of numbers and various sectors of the turf industry have tended to try and turn these into absolutes to enhance product sales. Soil nutrient testing is just one example where the numbers often drive fertiliser programs irrespective of turf condition.

As a former golf course superintendent discussed with me many years ago, "just because the pH is less than 5, the turf quality and the playing surfaces are where I want them to be and I won't be applying lime". In this case the soil testing was being used to monitor the soil chemistry and whether there were any significant changes occurring from year to year that may require further investigation.

The interpretation of soil nutrient testing has evolved with new interpretations of the data generated. Does this make the data any

more or less relevant? The answer is clearly 'No!' Whichever way the numbers are used they must be related to the condition of the turf and this is where the turf manager needs to review the data and the recommendations in the context of turf and surface quality.

An example that I can relate to where additional tools were required to meet a need, was the work I started doing for the Australian Football League (AFL). When I started with the Australian Golf Course Superintendents Association (now the Australian Sports Turf Managers Association), I began undertaking assessments for the AFL which was in part as a response to player injuries where the playing surface was being blamed.

At around the same time, some early research work on ACL injuries, undertaken by Dr John Orchard, focused on the playing surface characteristics as it related to injury potential. Initially the focus was on surface hardness and then it was around the concerns of warm-season grasses such as couchgrass and kikuyu and the potential for excessive traction trapping the boots of a player resulting in injury. The introduction of regional fields for pre-season games introduced another consideration given that there is always a concern as to whether these surfaces would be up to AFL standard.

The initial inspections for the AFL were a visual assessment only, however, when statements are made about "rock hard" grounds or excessive traction and ACL injuries, it increased the need to introduce additional tools. These included the Clegg Impact Soil Tester, traction device and soil moisture probe which were used to better quantify what was occurring and whether the numbers sat within 'acceptable parameters'. In effect they were still just numbers and needed to be related back to soil conditions, turf quality, irrigation

***There are many new tools that turf managers can utilise these days. However, you must first understand why you are using them and what you are trying to demonstrate with the data they produce***

efficiency and turf maintenance practices. The 'acceptable parameters' have been questioned from time to time, however, they are supported by research work dating back to the 1980s.

The problem now exists where there are several providers undertaking surface assessments using modified equipment and comparing the numbers against different 'acceptable parameters'. Numbers from different devices are just numbers and create confusion and some level of standardisation supported by well conducted research is warranted if the testing is to mean anything.

Over the past 15 plus years we have seen several sophisticated tools used to better map turf areas and to identify problem areas. The Toro Precision Sense™ equipment was the first device to map large turf areas such as sportsfields and golf course fairways and now we have sophisticated drones and satellite images that can provide us with a map of the turf area(s) and potentially identify problems. These more sophisticated tools provide us with a starting point, however, an experienced agronomist still needs to visually inspect the 'problem' areas and to identify the cause. So, we again circle back to the importance of experienced eyes in appraising turf conditions.

The tools available to turf managers and turfgrass agronomists and the numbers that are generated have a useful place in turf management. However, at the end of the day you must understand why you are using the tools and what you are trying to demonstrate with the data, charts, tables and maps produced. On the ground visual inspections of turf and soils must always accompany the data. Remember, the data complements the visual observations and must not be considered to be an absolute.

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# Delivering on potential

*ATM expert columnist Peter McMaugh AM looks at water needs and water delivery and the continuing development and improvement relating to nano bubble technology.*

**W**hen I came onto the turf scene in 1964, the primary delivery of water for golf was via a knocker sprinkler on the end of a hose. Things were becoming more sophisticated and it wasn't long before pop up knocker sprinklers in cans appeared. In Australia, Deveson Jahn P/L, which had a big foundry, was the leading producer of brass sprinklers in metal cans. Control was manual, with the valve turned on at the valve box. For bowling greens it was Perfo-rain pipes, a super-size soaker hose concept in aluminium. Greens would get well flooded every Monday!

Overseas in the early 1970s things were slightly more sophisticated with plastic cans

displacing metal ones and more sophisticated valves allowing banks of sprinklers to run, cutting irrigation times. Then in the late 1970s and early 1980s there was an explosion in technical advancements with gear-driven sprinklers and changes in valve technology to hydraulic control stations. This was 'new' and quite revolutionary.

The 'brains' behind the development of geared sprinkler technology was Ed Hunter, who was then at Toro. This gave them a big edge in the market place, until Ed moved on to set up his own company, Hunter.

Today we live in a new era of electronics with evermore sophisticated control designs based around current wireless technology. Today we see back-to-back sprinklers – one

servicing greens and one servicing the surrounds – with immense benefits to both water use and turf. Bowling greens have also moved to corner located pop-up sprinklers, covering the greens in a far better controlled manner.

What of turf farms? This is where there is still a very big gap in the quality of delivery compared with the maintenance side of turf. Only a few farms have invested in in-ground sprinkler head technology and in most instances that is only for special purpose-built turf pads for stadium installations. Most turf farms in Australia are too small to incorporate centre pivot or lateral move sprinkler systems into their operations, while on many others the damage that floods can do to such systems



*The quality and biology of a facility's irrigation water plays a critical role in the overall health of its turf surfaces*

makes it difficult to justify such installations. So much of turf production farming is locked into knocker sprinklers in the form of big guns which are glaringly inefficient.

Yet for many a country golf course they offer almost the only alternative to the in-ground system that they can't afford. Perhaps this is where we need to have a very good look at the structure of golf administration in Australia. Yes, all golf clubs struggle to keep the books in the black and balance them, but is there room for some of the wealthier and more established clubs to develop some kind of 'Big Brother' mentoring programme, where over a number of years they could assist a country club with development of an irrigation system? Maybe it might take a small group of city cousins to look after one country cousin, but in the spirit of golf is it worth a thought?

One of the things I do see eventuating within the next 50 years is that the economics of large-scale energy grid transmission lines is going to shift to putting manufacturing closer to where the cheap energy can be produced. The one thing Australia can most certainly have a glut of in the near future is cheap energy and that cheap surplus energy will be



*Today we live in a new era of electronics with evermore sophisticated irrigation control designs based around current wireless technology*

used to develop much more sophisticated water treatment and production of potable water in areas where this is currently not feasible.

One of the huge lessons that we have, or should have, learned from COVID is that when people are no longer time-poor they flock to recreation and a big beneficiary has been golf. In my long experience of visiting golf venues in country areas, there is no more popular place in town than the local golf club with a vista of

beautiful green fairways and you can't really have them without good quality water and good quality irrigation systems.

Armed with the knowledge that these are out there aplenty in the market place today, we have a choice of systems that are more than adequate to achieving excellent delivery of water, together with pump sophistication that was not available even 20 years ago. How often do we ask or involve ourselves in choosing sprinklers or questioning pipe sizes



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or look in detail at what a new design is doing for a difficult spot on the course?

Do we even have adequate training in our understanding of hydraulics to engage in meaningful conversation or do we just leave it to the designer and place all our faith in the company offering us 'free' design. While mostly these companies employ adequate professionals, I have seen many miss the essential perimeter engineering things that are often needed to make a system work. This is where the value of a truly excellent consultant can be invaluable.

Then we get to the installation. Great systems perfectly installed work wonderfully. But I have seen far too many cowboy jobs done over the years. This is where it is worth appointing and paying for a high-quality independent supervisor. I don't need to detail a list of horror stories for I'm sure you have seen them yourselves.

## WATER QUALITY AND BIOLOGY

So, you have everything installed and the catch can test has been done and you are sure you have a perfectly adequate irrigation system to deliver your water. But you are not getting the results you expected. You've got patchy performance, wet spots, dry spots and uneven performance from fairway to fairway... what is going on? The irrigation system is just one tool in the overall management needs for your watering regime to deliver excellent results. It is just one tool no matter how you look at it. So where to now?

Once again, we come to the realisation that what seems simple is far from it. Because of the multiple factors at work, the interplay of results can be very variable. When you were doing the installation, did you notice the soil conditions on 'fairway X' was far different from 'fairway Y', or even within 'fairway X' how



*The best way to ensure good water to oxygen balance in greens profiles is to build them correctly*

variable the soil moisture content or the tree root invasion was? Welcome to the real world of biological chaos.

Then there is the water itself. Is it alive or is it dead biologically? What is its dissolved oxygen (DO) status? Dissolved oxygen... what are you talking about? Not only is it essential but you can and should be measuring it on a regular basis. How do you do that? There are meters available. Undoubtedly the upper echelon golf courses have dedicated irrigation technicians employed, but are they just mechanics or pump jockeys, or do they know their biology also? For the greater majority of you who have to be all things to all men, you may need to get a big grip on some refresher courses if they are available.

We all should know about the standard problems of quality in regard to pH and total salts as well as bicarbonates. In states like Western Australia, western New South Wales and Queensland, there are always the problems of excessive iron and these need both adequate chemical and engineering solutions or you will wind up with solenoids choked with iron or dirt deposits and pipe diameters half of what you started out with.

In the real world, we face these multiple problems every day and the hotter the season gets the greater the stress becomes on both the grass and us. This is where the dive into the tool box becomes deeper and deeper as the stress becomes greater.

One of our biggest problems, especially on older developed venues, is dry patch. We all know the answer – wetting agents, detergents. Is it better economically to use the more expensive long-lasting ones or can I have as much success with a regular dosage programme of cheaper shorter-lasting ones? It is a question worth asking yourself.

There is, however, one thing I can say for certain – no matter how much wetter you use you won't cure dry patch. You have to change the soil biome balance to achieve that and that is another story for a different day. Just make sure you never let them dry out. One of the biggest problems that dry patch brings on is an incentive to over water, with the consequent development of black layer.

Recently, in some correspondence with a superintendent I highly respect, I received the comment that the best piece of advice I had given another superintendent was to put him on a programme of needle-tining old tired greens. This is a great mechanical tool to use because it enables water to get to where it needs to go and it increases the soil oxygen.

The best result for that problem – the water to oxygen balance in greens – is to build them right in the first place. I noted the articles on the project to rebuild the greens at Mt Lawley Golf Club in Perth (ATM Volumes 24.6 and 25.1) detailing the thoroughness with which they have gone about developing their greens mix. It is an impressive example of attention to detail and the proof of the pudding appears in the white root extension pattern.

## NANO BUBBLE TECHNOLOGY

The soil ratio of water to oxygen is the single most important characteristic needed for soil water to do its job in plant health and plant growth. This brings me to the point where I want to talk about oxygen in water and why a new technology based around nano bubbles of gas in any liquid is probably going to revolutionise agriculture worldwide, with one of the first applications being in turf.

Nano bubble technology is not new. It is at least 60 years old and was first explored



PHOTO: NANO BUBBLE TECHNOLOGIES

*The characteristic of nano bubble treated water is to act as if it contains wetters. In this trial, nano bubble treated water (right) entered the soil eight times quicker than untreated irrigation water (left)*



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PHOTO: NANO BUBBLE TECHNOLOGIES

*The dissolved oxygen status of water is not only essential but you can and should be measuring it regularly*

in Japan as an offshoot of the mini bubble technology used in mineral separation in the mineral ore treatment industry. Its claim to fame there was in cleaning up water pollution in both static and open port facilities. However, the devices developed were small scale and limited in their ability to treat large volumes on a continuous flow basis.

The big change came from Australia with a large industrial abattoir having a hygiene problem that they tackled with nano bubble ozone. It was a complete and outstanding success. The butcher, a member at Avondale Golf Club in Sydney, then assisted financially to put in a treatment system at the club. This produced some remarkable changes in the quality of the turf on all aspects of the course, but especially the greens.

They sought a consultation with me and while I could see some potential in the theoretical side of the equation, there were too many unanswered questions in the working detail to give me confidence in anything other than the concept.

Having ignored implementation of the initial advice I gave NBT and then encountering major issues as a result, they have regrouped and addressed them. The end result of this is that their generator has moved from being able to trap 65 per cent of the gas stream to being able to trap 94 per cent of it as nano bubbles and it can do this on a reliable and repeatable basis, which it could not do previously.

This work has been done at the University of NSW and it has measured the mean size of the bubbles as 80 nanometres (nm) which is more than 50 per cent smaller than the 200nm defined size of a 'nano bubble'. This gives a concentration of nano bubbles of over two billion per litre and has increased their shelf life at 20°C from about four days to four weeks. This gives a stable DO level in the water of 42 per cent. We still don't know

what the optimum level is for plant growth, but other work indicates that it is probably about 14 per cent DO with not much increase in performance being seen above 20 per cent. (It must be noted that the use of 'DO' here is for convenience of field measurement. Of more importance is the bubble measurement which can only be done in a laboratory.)

With ozone, the story is just as exciting, with increases from four to 10 per cent and life span from 40 minutes to four days. At this stage there is no hard data from controlled growth trials but that is underway with a project won by Turf NSW again being carried out under University of NSW supervision.

The 'data' from previous golf club work does not have the rigour needed to support definitive conclusions because the applications involved various shandy rates of mixing with untreated water. What is exciting though, is the characteristic of the water to act as if it contains wetters. Nano bubbles, by their charged nature, change the surface tension of the water and it enters the soil as soon as it hits it. This occurs whether the soil has dry patch or not. It goes into the dry patch and does not run off. This means that you can go home and sleep at night knowing that your soil profiles are uniformly wet to depth.

The oxygen and ozone (optional) treatments have taken pythium out of the equation as a summer nightmare. It will be interesting to see what story future work tells us about other pathogens and the efficacy of chemical treatments in control programmes. There is also a major growth stimulus from higher root oxygen levels. In practice this means you can cut back the fertiliser needs by probably 50 per cent. It is uncertain exactly how this works, but there is evidence for both quicker uptake of ions and greater concentrations of soluble nutrient from enhanced microbial activity.

If we come back to putting this in a delivery context there are some interesting challenges. The first of these is that contaminated water when treated will drop out lots of solids and these have to be stopped getting into the system. The second is that every change of flow direction through 90 degrees will cause a loss of nano bubbles. Finally, with nano bubbles being unstable above 20°C, underground storage and night delivery are probably going to be essential.

There is still a long way to go with this saga, but at least the technology is back on the rails and we can live-in hope that top-class systems, with in-ground moisture sensing as a control, will deliver a new level of high-quality product in the near future. 🌱



## VALE HARRIET BEARD

**Harriet Jean Beard**, the wife of the late, great turfgrass pioneer **Dr Jim Beard**, died on 25 April 2023 at the age of 89. This closes a unique chapter in the history of the turf world.

Harriet grew up on a farm in Ohio neighbouring the one Jim grew up on. Harriet was a few years older than Jim. They worked in tandem in every sense of the word. Jim's ambitions were aided and abetted by Harriet with gusto. She was a driven woman and a driver. She strode the international stage alongside Jim with aplomb and certainty in every step.

This was the picture until she was stricken with breast cancer. This unnerved her very severely and she very much withdrew into herself in her later years. She was a very kind friend to me, when I was going through some personally difficult times. She missed Jim badly after his passing in 2018. She stayed in College Station, Texas where they lived the longest term of his great career.

Vale my dear friend, I will miss you.

**Peter McMaugh AM (19 May 2023)**



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# Couch trial update

*AGCSATech senior agronomist Bruce Macphee provides an update on the couchgrass trial at Sorrento Golf Club.*

**T**he ASTMA couchgrass trial at Sorrento Golf Club on Victoria's Mornington Peninsula is now entering its third winter and producing some valuable information on the performance of 10 couchgrass cultivars in southern Victoria.

By conducting a turfgrass trial over an extended period, both long-term and seasonal data is able to be collected. As the turf matures, assessments can be made on winter dormancy, colour retention, thatch accumulation and drought tolerance. Additionally, the trial allows us to see how the grasses respond to different environmental stresses and management practices, such as mowing height, disease pressure and the general level of maintenance and inputs required to maintain a high-quality surface.

With costs for maintenance increasing and pressure to provide quality playing surfaces year-round, this information can be invaluable for turf managers looking to establish and maintain sustainable high-quality playing surfaces for golf courses and sports turf playing surfaces.

The past three years has seen Australia under the influence of a La Niña weather cycle which drives cooler temperatures and

moist conditions throughout the summer. This has resulted in a shorter growing season, particularly during spring in the southern states, where these regions rely on good spring temperatures to bring warm-season grasses out of dormancy and stimulate growth and recovery from any damage which may have occurred during the winter months. As a result of La Niña, turf managers in the south have not seen good turf growth until well into the Christmas period over the past few years.

This has had a significant effect on sports turf surfaces, particularly those which are overseeded with ryegrass for winter play. Timing for removal of cool-season grasses and subsequent recovery of surfaces for summer competitions has been sporadic at best. This is a situation which may become an increasingly common issue as a changing climate sees a shift in traditional growing seasons and timing of when these works are best undertaken.

Selecting a grass which may be more suited to local climatic conditions, have a shorter dormancy period, provide greater wear tolerance or increased recovery potential is going to become increasingly important when selecting a suitable variety for any new development or upgrading of sports turf facilities.

The past summer on the Mornington Peninsula has been no different to the description above with soil temperatures well below average right up to Christmas resulting in slow growth during the spring months. In regards to the trial, this has provided some valuable data in showing varieties with early spring green up and growth potential.

Ten varieties are being assessed as part of the trial and include SA-6, SA-66 and Star Express (from Peter McMaugh), Windsor Green, Santa Ana, Tahoma 31, Grand Prix, TifTuf, Legend and Game Time. Below are some highlights from the most recent assessments relating to drought response and scalping treatments.

## DROUGHT ASSESSMENT

The previous summer of 2021-22 saw below average temperatures and regular rainfall which resulted in conditions unsuitable to conduct a drought stress trial. A follow up drought assessment was undertaken during this summer period with irrigation to the site turned off from 2 February 2023 through until a significant rain event occurred on 28 March 2023. During the 58-day assessment period, only 1.5mm of rainfall was recorded at the site. While there were some periods of hot weather



*Opposite: The couchgrass trial at Sorrento Golf Club has been running for the past three years. Varieties by plot number are: 1 SA-6, 2 Windsor Green, 3 Santa Ana, 4 SA-66, 5 Star Express, 6 Grand Prix, 7 SA-66, 8 Tahoma 31, 9 TifTuf, 10 Star Express, 11 Windsor Green and 12 Game Time*

experienced during the assessment, overall temperatures were below average with many cooler days also throughout the period. Table 1 (page 64) provides a summary of results from 25, 36 and 58 days after irrigation was turned off, with the following observations made:

- Due to the La Niña weather cycle, temperatures were below average for the period with less than 10 days above 30°C. This reduced the potential for drought stress.
- At 25DAT – TifTuf, Tahoma 31, SA-66, Star Express and Legend had significantly less drought stress compared to other varieties. Tahoma 31 and TifTuf showed significant higher turf quality. There was no significant difference for NDVI readings between varieties.
- At 36DAT – Tahoma 31, TifTuf and Star Express had significantly less drought stress compared to other varieties. Tahoma 31 and TifTuf had significantly better turf quality. There was no significant difference for NDVI readings between varieties.



*Irrigation was turned off for a 58-day period (2 February to 28 March 2023) to undertake drought assessments*

- At 42DAT – There was no significant difference in soil moisture between plots which ranged between 4.3-8.4% v/v which is considered to be low to moderate.
- At 58DAT – All plots were showing signs of mild drought stress. TifTuf, Legend, Tahoma 31, Game Time, SA-6 and SA-66 had significantly less drought stress compared to the other varieties. Tahoma 31, TifTuf, Legend and Game Time showed significantly higher quality than the

other varieties. There was no significant difference in NDVI readings.

- At 58DAT there was a significant rainfall event and further drought assessments ceased.

## SCALPING ASSESSMENTS

There have been two scalping and recovery assessments undertaken on the trial site in the past growing season. In early November the turf was scalped down to 10mm as the first

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TABLE 1. DROUGHT RESPONSE ASSESSMENT – FEBRUARY-MARCH 2023

Cultivar	27/2/23 (25 DAT)			10/3/23 (36 DAT)				28-3-23 (58 DAT)		
	NDVI	Drought Stress	Quality	NDVI	Drought Stress	Quality	Soil Moisture	NDVI	Drought Stress	Quality
SA-6	0.677	2.0 <sup>ab</sup>	7.0 <sup>c</sup>	0.642	4.7 <sup>bc</sup>	5.0 <sup>de</sup>	8.4	0.537	3.3 <sup>abc</sup>	5.3 <sup>bc</sup>
Windsor Green	0.656	2.3 <sup>bc</sup>	7.0 <sup>c</sup>	0.638	4.7 <sup>bc</sup>	6.3 <sup>bc</sup>	4.6	0.534	3.7 <sup>bc</sup>	4.7 <sup>c</sup>
Santa Ana	0.686	2.3 <sup>bc</sup>	6.7 <sup>c</sup>	0.629	5.0 <sup>c</sup>	5.3 <sup>cde</sup>	6.2	0.520	3.7 <sup>bc</sup>	5.3 <sup>bc</sup>
SA-66	0.677	2.0 <sup>ab</sup>	7.3 <sup>bc</sup>	0.612	4.7 <sup>bc</sup>	4.7 <sup>def</sup>	6.6	0.543	3.3 <sup>abc</sup>	5.3 <sup>bc</sup>
Star Express	0.683	2.0 <sup>ab</sup>	6.0 <sup>d</sup>	0.613	3.0 <sup>ab</sup>	3.7 <sup>f</sup>	5.7	0.575	4.3 <sup>c</sup>	3.7 <sup>d</sup>
Tahoma 31	0.711	1.3 <sup>ab</sup>	8.3 <sup>a</sup>	0.699	2.3 <sup>a</sup>	7.7 <sup>a</sup>	5.3	0.640	2.3 <sup>ab</sup>	6.3 <sup>a</sup>
Grand Prix	0.626	3.3 <sup>c</sup>	6.3 <sup>d</sup>	0.573	5.0 <sup>c</sup>	5.7 <sup>bcd</sup>	5.4	0.563	4.3 <sup>c</sup>	3.7 <sup>d</sup>
Tiftuf	0.732	1.0 <sup>a</sup>	8.0 <sup>ab</sup>	0.700	2.3 <sup>a</sup>	6.7 <sup>ab</sup>	6.9	0.664	1.7 <sup>a</sup>	6.0 <sup>ab</sup>
Legend	0.690	2.0 <sup>ab</sup>	7.3 <sup>bc</sup>	0.656	4.7 <sup>bc</sup>	5.3 <sup>cde</sup>	4.3	0.572	2.0 <sup>a</sup>	6.0 <sup>ab</sup>
Game Time	0.679	2.3 <sup>bc</sup>	7.3 <sup>bc</sup>	0.633	4.0 <sup>abc</sup>	6.3 <sup>bc</sup>	6.6	0.551	2.7 <sup>ab</sup>	5.7 <sup>ab</sup>
LSD (P<0.05)	NS	1.2	0.9	NS	1.7	1.2	NS	NS	1.6	0.7

Note: Results above with the same letter are not significantly different.

mowing of the spring. At that time the plots had moderate thatch levels. In February 2023, the turf was scalped down to 6mm following three weeks without mowing. Table 2 shows results from the November 2022 scalping trial with the following observations being made:

- After scalping, Tahoma 31 had the lowest rating for damage from scalping compared to all other cultivars.
- Tahoma 31, Grand Prix and Game Time had the highest rating for colour compared to all other cultivars and reflected the relatively low damage from scalping.
- At 24DAT, Tahoma 31 and Tiftuf had the best recovery from scalping compared to all other cultivars.

## FUTURE ASSESSMENTS

The trial is set to conclude in 2024 and during the final year significant evaluations will be conducted. These will involve a wear trial in which various degrees of wear will be applied to each plot to gauge resistance and ability to recover. Morphological differences will also be measured such as shoot density, vertical growth rates, above-ground biomass and thatch accumulation. Such factors provide an indication as to the level of maintenance required, such as mowing frequency or thatch removal, in order to maintain a high-quality playing surface.



Two scalping and recovery assessments have been undertaken on the trial site in the past growing season. Pictured are the plots following the early November 2022 scalping

## CONCLUSION

This trial is providing valuable information on the performance of various couchgrass cultivars over multiple growing seasons. The opportunity to compare cultivars new to the Australian market against familiar tried and tested grasses has shown improvements in breeding and selection are providing a range of grasses which will be suitable for a variety of sports turf situations and maintenance budgets.

A full review of the results from this year will be presented at the 2023 Australian Sports Turf Management Conference in Adelaide. This will include full details of the drought assessment, seasonal turf quality, winter and summer colour ratings, seed head production, disease incidence, scalping and recovery. This session will be conducted in the Agronomy Stream, Thursday 22 June, 11.40am-12.20pm.

With such a diverse range of climatic conditions throughout Australia and a changing climate, this trial highlights the importance of conducting cultivar trials over multiple locations across the country. Unfortunately, funding for such trials has been hard to come by in recent times. Investing in turf trials is critical for ensuring that the turf industry can adapt to changing conditions and continue to provide sustainable, high-quality playing surfaces.

## ACKNOWLEDGEMENTS

The ASTMA would like to sincerely thank Sorrento Golf Club, superintendent Shane Greenhill and his staff for providing ongoing support throughout this trial. 🙏

TABLE 2. SCALPING ASSESSMENT – NOVEMBER 2022

Cultivar	Scalping Damage	Colour 2DAT	Recovery 24DAT
SA-6	8 <sup>c</sup>	2.0 <sup>c</sup>	4.0 <sup>c</sup>
Windsor Green	6 <sup>b</sup>	4.0 <sup>b</sup>	4.7 <sup>bc</sup>
Santa Ana	8.3 <sup>c</sup>	1.7 <sup>c</sup>	4.0 <sup>c</sup>
SA-66	8.3 <sup>c</sup>	1.7 <sup>c</sup>	4.0 <sup>c</sup>
Star Express	7.0 <sup>bc</sup>	3.0 <sup>bc</sup>	4.3 <sup>bc</sup>
Tahoma 31	3.7 <sup>a</sup>	6.0 <sup>a</sup>	6.7 <sup>a</sup>
Grand Prix	5.3 <sup>ab</sup>	4.7 <sup>ab</sup>	4.3 <sup>bc</sup>
Tiftuf	7.0 <sup>bc</sup>	3.0 <sup>bc</sup>	5.7 <sup>ab</sup>
Legend	7.0 <sup>bc</sup>	3.0 <sup>bc</sup>	5.0 <sup>bc</sup>
Game Time	5.7 <sup>b</sup>	4.3 <sup>ab</sup>	3.7 <sup>c</sup>
LSD (P<0.05)	1.9	1.9	1.6

Note: Results above with the same letter are not significantly different.





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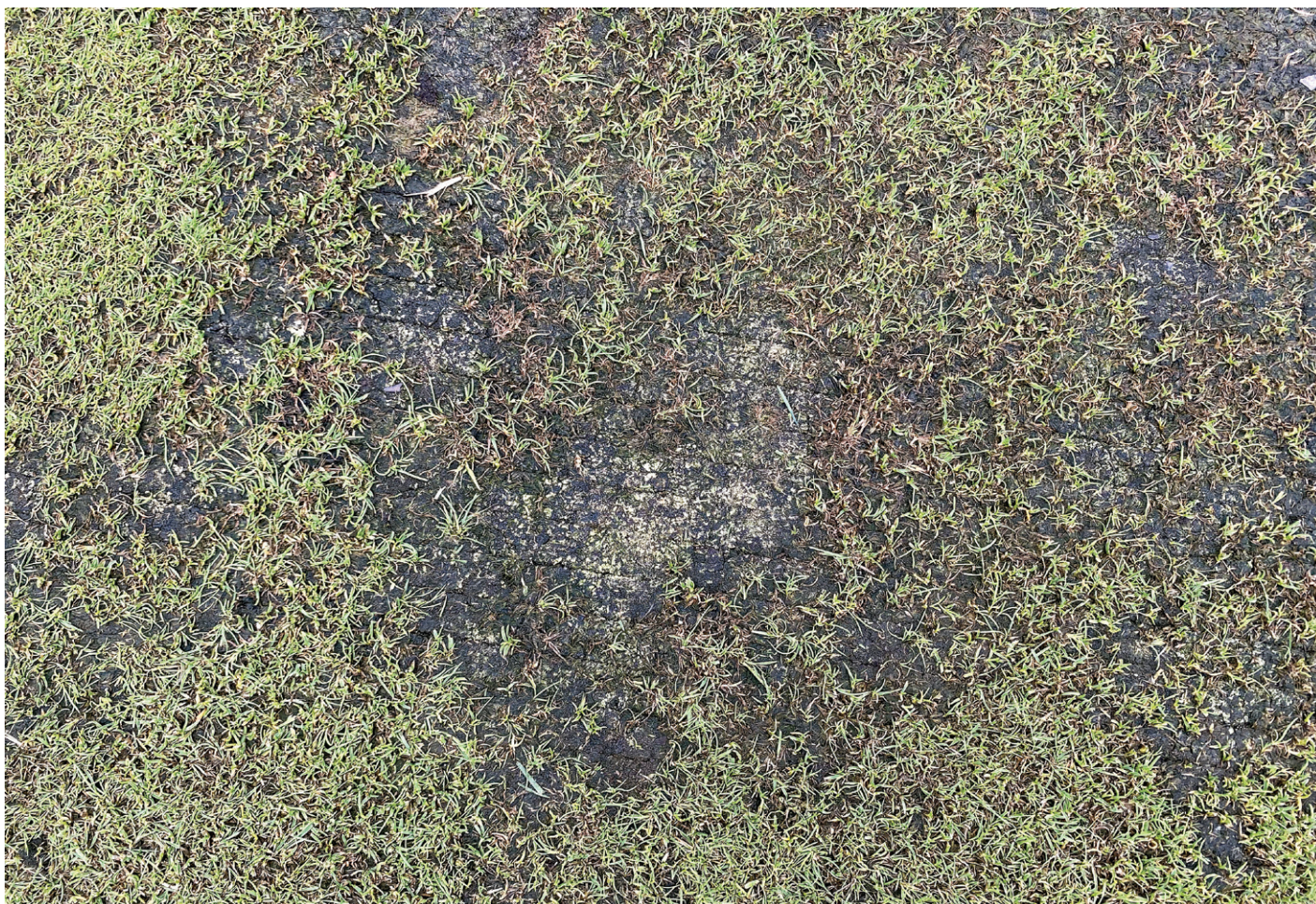


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*High salt levels and accumulation in the profile can have a serious impact on turf health, as shown on this bentgrass green in Perth*

# Worth your salts

*ATM columnist John Forrest discusses the challenges around and importance of managing salt accumulation in turfgrass profiles.*

**T**urf management is a basic process. There are four things a plant requires and if any one of these is impacted then plant growth will be affected.

Light, water, food (nutrition) and air (oxygen) are the factors that need to be balanced. While other factors such as weeds, pests and diseases can influence plant health, it is when one of the aforementioned is altered or out of balance that plant growth is affected.

Disease impacts either or both the leaf and roots. Damaged roots cannot take up water and nutrients and if the vascular systems are damaged then the transport of water and nutrients is inhibited. Pests can also damage plants and if they are believed to be attacking then damage should be able to be observed

which in turn impacts the plant's metabolism. Weeds compete with turf for water, nutrients and, in some cases, light, affecting plant health and the standard of the playing surface.

Waterlogging or droughty soils are self-explanatory – either insufficient oxygen or a lack of available water. I did talk to a turf manager who had a drainage issue and a keen salesman had sold him a bottle of a product that was going to alleviate the problem. Drainage is generally due to soil physical problems and typically a physical solution is required.

One of the processes that can be difficult to manage and remedy is the accumulation of salts. In semi-arid or arid climates, salt accumulation can be a major problem. In

Western Australia, like many inland parts of Australia, the evaporation rate is far higher than the precipitation rate during the late spring, summer and early autumn. This limits the amount of flushing and leaching of salts that have accumulated in the rootzone over the drier months.

Often in regional areas or areas with limited water supplies, the water source itself is another factor that has a significant impact and salinity management through the hotter months becomes critical. Adding to that, some regional areas often have unsuitable sands or soil profiles that have inadequate drainage potential. Soils that have a high fines content will increase the management headaches for active sports and horse racing facilities, including the management of salts.

## KNOW YOUR SALTS

The table which follows shows what salts make up the electrical conductivity (EC) in a soil solution. Salts can be categorised further into cations and anions. Cations are ions with a positive charge and anions are those with a negative charge.



Cations	Anions
Calcium (Ca <sup>2+</sup> )	Chloride (Cl <sup>1-</sup> )
Magnesium (Mg <sup>2+</sup> )	Bicarbonates (HCO <sub>3</sub> <sup>1-</sup> )
Potassium (K <sup>1+</sup> )	Carbonate (CO <sub>3</sub> <sup>2-</sup> )
Ammonium (NH <sub>4</sub> <sup>1+</sup> )	Sulfate (SO <sub>4</sub> <sup>2-</sup> )
Sodium (Na <sup>1+</sup> )	Nitrate NO <sub>3</sub> <sup>1-</sup>

The cation exchange capacity (CEC) of soils is measured as milliequivalents (Meq), which measures the number of negative charges that cations can be attracted to the surface of soil particles. Cation exchange sites in the soil have a negative electrical charge that are associated with the finer soil particles such as clays and organic matter. There are also chemical reactions in the soil, such as changes in soil pH, that influence the attraction of ions.

When a cation is taken up, a hydrogen ion is excreted. When an anion is taken up, a hydroxyl ion is excreted. As cations are taken up by the plant, there is a slight acidifying effect around the plant root system due to the increase in hydrogen ions. If the plant is returned to the soil, it balances the acidity to some degree.

## HOW TURF TAKES UP WATER

Water is taken up by the plant through osmotic pressure. This is where molecules of water move from an area of lower salt concentration to a region of higher salt concentration through a semi-permeable membrane. As the salt levels in the soil water increases, the plant uses more energy to extract water from the soil which ultimately slows plant growth. If the concentration of salts is higher on the outside of the roots, then reverse osmosis may occur. This is where water moves from an area of lower salt concentration, which will be in the root cells, to an area of higher salt



*High salt levels in irrigation water will impact the availability of nutrients to the plant*

concentration in the soil solution. This can result in salinity-induced plant wilting. A similar reaction occurs with salt burn.

## SODIUM AND CHLORIDE IMPACT

High salt levels in water and soil, in particular high sodium and chloride, have been outlined by many authors and researchers over the years and the impact they have on plant health. The threshold for both these salts is not clear and many factors play a role in the amount of damage they do. The tolerance of a bentgrass golf green is lower than a warm-season grass such as kikuyu which is widely grown in WA on sports grounds, fairways and racecourses. The tolerance of couchgrass or paspalum is higher again.

Salt levels from recycled water increase during the summer months as water storages

drop, evaporation increases and no rainfall occurs to help dilute the salt levels. In some testing conducted on a number of kikuyu surfaces in WA this past summer, the highest sodium reading in the soil was 1110ppm with only a few dry patches obvious. In several areas where dry patches were noticeable, moisture readings indicated a high to moderate moisture content, indicating that the problem was salt-induced water deficiency. Growth had slowed as the plant tried to combat the high salt levels and gone into stress despite there being adequate soil moisture.

## FERTILISER IMPACT

When there is a lack of grass coming off a green or the surface is looking a little stressed or hungry, an application of fertiliser may be planned. But what is the salt index of the product that is about to be applied? If the grass is under stress, adding a high salt index fertiliser may not provide the best outcome. Get an EC meter and test the fertilisers that you are wanting to apply. Mix them up at the rates they are to be applied and test the solution. Many moisture sensors have an EC or salinity index capability to enable testing of the surface after any product applications.

Investigating the salt index as a percentage of nutrients in a fertiliser is important. A fertiliser with a slightly higher salt index may be the best option because of the higher percentage of nutrient meaning less is required.

If your water supply is high in salts and you put a fertiliser on and water it in, chances are that the salt levels will increase in the upper rootzone. If there is a reasonable amount of organic matter in the profile or finer soils that hold on to water, as the water evaporates or is taken up by the plant the amount of water is reduced in the soil solution. As the

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***Salt-induced water deficiency causes turf growth to slow as the plant tries to combat the high salt levels. The turf will begin to stress despite there often being adequate soil moisture levels***

water is depleted the concentration of salts will increase, therefore increasing the salinity hazard. If the salts aren't leached from the rootzone and the plant does not allow the salt in through the semi-permeable membrane, then there may be more salts on the outside of the root than on the inside. As a consequence, the plant will use its energy to manage the salts, which will result in a slowing of water uptake. This will then result in physiological drought stress.

A soil test is important to determine soil nutrient levels and what may be running low or what is not required, or whether just nitrogen is needed to manage growth and turf health. Nutrient imbalances are also important to monitor. High salts in irrigation water are going to impact the availability of other nutrients.

Ion charges were shown earlier in this article for salts that the plant requires. Several of the cations (Ca and Mg) are what is known as divalent cations meaning their valency is 2+. These will be bound tighter to the cation

exchange sites than a monovalent ion (1+). Therefore, if the water supply is high in calcium or magnesium it will dominate the cation exchange sites. If water is high in sodium and irrigation is occurring daily in a dry arid climate, then sodium is likely to dominate the cation exchange sites. Magnesium can be high in some bore water and impact the availability of calcium.

Potassium is a monovalent cation and is easily displaced by calcium, magnesium or sodium and that is the reason it is often low in soil test results. If regular rainfall occurs, then sodium and chloride is not going to be a problem as long as the water flushing them out of the profile can get away.

Irrigation water certainly has a big impact on soil salts and can create imbalances that need to be recognised and remedied if they are a problem. But not applying the correct nutrition mix can also have an impact on the balance of nutrients in the soil and plant. Take some time to understand the nutrients



***In a high salinity environment, compaction will impede drainage which can result in black layer forming***

being applied and their characteristics. Are they cations or anions? Sodium is a cation and chloride is an anion and that is why sodium is more likely to accumulate in the soil profile than chloride. In sandy soils with very little fines or organic matter, chloride will leach easily. Phosphorus is an anion, as is nitrate, and that is why they are more prone to leaching in sandy soils as they are unlikely to be held in the profile. The amount of water added is important to where they end up.

To minimise salt accumulation, especially when using saline water, it is important to keep the organic matter content under control. In a high salinity environment, any compacted layers will impede drainage and result in an increase in the salt levels. If these compacted areas become waterlogged then black layer is also likely to form. Regular soil aeration is critical to ensure there is adequate soil permeability and drainage and the leaching of accumulated salts. It is also important to ensure that calcium and magnesium levels are maintained. If a large amount of calcium is required to keep sodium levels under control, then keep an eye on the magnesium and potassium as it is easy to create an imbalance.

Base saturation is not much good for nutritional decision-making, but is a good tool to observe the percentage of cations on the exchange sites. Where high salinity is a concern, the base saturation provides a useful method of monitoring the sodium and calcium levels and whether remedial action is required such as the addition of gypsum. Where there is an excess of sodium there will be nutritional imbalances such as the uptake of sodium to the exclusion of potassium. ㄿ

***The salt tolerance of a bentgrass golf green is much lower than a warm-season grass such as couch or kikuyu***





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PHOTO: BEN TILLEY

# Recycling rewards

*Kate Torgersen looks at the benefits of implementing a container recycling program at your turf management facility.*

**L**andfills are an unfortunate by-product of modern society and their negative impact on the environment cannot be overstated. Landfills are responsible for air pollution, groundwater contamination and land degradation. Recycling landfill waste is an important step towards reducing these negative effects and ensuring that we leave a cleaner and safer planet for future generations.

According to the Australian Bureau of Statistics, in 2018-19 Australians generated over 75 million tonnes of waste, with 57 per cent of that ending up in landfills. The amount of waste generated per capita in Australia is among the highest in the world, with each Australian producing an average of 2.2 tonnes

of waste per year. Such figures highlight the importance of reducing waste and promoting sustainable waste management practices in Australia, including recycling and diverting waste from landfills wherever possible.

Recycling landfill waste has a number of benefits. First and foremost, it helps to conserve natural resources. Recycling reduces the number of raw materials needed to produce new products, which in turn reduces the amount of energy required to extract and process these resources. This leads to a reduction in greenhouse gas emissions and other pollutants.

Another important benefit of recycling landfill waste is the reduction in landfill space needed. Landfills take up valuable land and

as they grow in size can become an eyesore and a source of environmental pollution. By recycling waste, we can reduce the amount of space needed for landfills and preserve our natural landscapes.

Recycling landfill waste is also an important step towards creating a circular economy. A circular economy is one in which resources are used and reused in a closed-loop system, with waste being recycled back into new products. This reduces the need for virgin materials and minimises environmental impact of production and disposal.

Implementing a recycling program at your turf management facility can be a relatively simple process. The first step is to assess the types and amounts of waste generated. This will help you determine which materials can be recycled and what type of recycling program is best suited for your needs.

Once you have identified the materials that can be recycled, you can set up a collection system. This can involve placing recycling bins throughout your facility or setting up a centralised collection point where staff can bring recyclable materials. It's important to clearly label recycling bins and educate staff on what can and cannot be recycled.

Finally, it's important to work with a reputable recycling provider to ensure that your materials are properly collected, sorted



**Headland Golf Club on the Sunshine Coast has recycled in excess of 180,000 beverage containers over the past three years, generating \$9200 in funds**

and processed. Look for providers that are certified by reputable organisations like the Recycling Certification Institute or the Sustainable Materials Management Coalition.

## EXCHANGE PROGRAMS

In recent years, the Australian government has introduced a number of policies and initiatives aimed at reducing waste and promoting recycling, including a ban on the export of certain types of waste and the implementation of a national waste policy. At a state level, the Container Exchange program aims to promote recycling and reduce waste to landfill by providing a financial incentive for consumers to return eligible drink containers for recycling.

As a turf management facility, you can incorporate the Container Exchange program to not only support recycling efforts but also to generate additional funding for your facility. To participate in the program, your facility can set up a collection point for eligible drink containers, such as plastic bottles and aluminium cans. The containers can be collected from staff, visitors and members of the public and then returned to a registered collection point for processing and recycling.

Under the program, your facility can receive a refund for each eligible container returned, which can then be used to fund facility improvements or other projects. For example, you could use the funds to purchase new equipment, upgrade facilities or implement a new sustainability program.

To get started, your facility will need to register as a collection point with the Container

Exchange program. This involves completing an online application and meeting certain requirements, such as having a secure and accessible collection point and complying with health and safety regulations.

Once registered, you can promote the program to staff, visitors and members of the public through signage and other marketing materials. You can also work with local schools and community groups to encourage participation in the program and generate additional support for your facility.

The Container Exchange program, also known as Containers for Change, is operational in most states. The program was first introduced in Queensland in 2018 and is now well-established, with more than 360

One facility to embrace the Containers for Change program is Headland Golf Club on the Sunshine Coast. Since September 2019, Headland has been in partnership with passionate club member Adam Rydwanski to recycle the club's plastic and glass bottles as well as aluminium cans. Headland life member Robert Howard designed, co-ordinated and constructed dual receptacle bins (see *photo opposite*) which incorporated recycled 'modwood' slats and have been placed on every second tee. One bin is designated for bottles, cans and plastics, while the other bin is for normal waste. Together with his son Blake, Rydwanski accumulates all the recyclable containers from the golf course and delivers them to one of the program's collection

*“A Container Exchange program not only supports recycling efforts but can also generate additional funds.”* - Kate Torgersen

refund points across the state. WA and the ACT introduced the program in 2020 with over 200 refund points currently in operation in the West. New South Wales introduced the program in 2021, with refund points being gradually rolled out across the state.

While South Australia does not have the Container Exchange program, they have a similar initiative called the Container Deposit Scheme (CDS) which has been successfully operating since 1977. The CDS enables South Australians to take eligible beverage containers to return points and receive a 10-cent refund for each container. The Northern Territory has also operated a CDS since 2012, while this November the Victorian Government will introduce a similar scheme.

depots, returning all proceeds back to the club for its junior development programs.

The numbers are quite remarkable. In the program's first year (October 2019 – September 2020), a total of 42,583 containers were recycled. That increased to 65,854 in the second year and jumped to 75,678 in the third year. In the first three years of the program, a total of 184,112 containers have been recycled at Headland, generating funds of \$9200.

Recycling landfill waste is an important step towards reducing our environmental impact and creating a more sustainable future. By implementing a recycling program at your turf management facility, you can do your part to conserve natural resources, reduce landfill space and create a more circular economy. ♻️

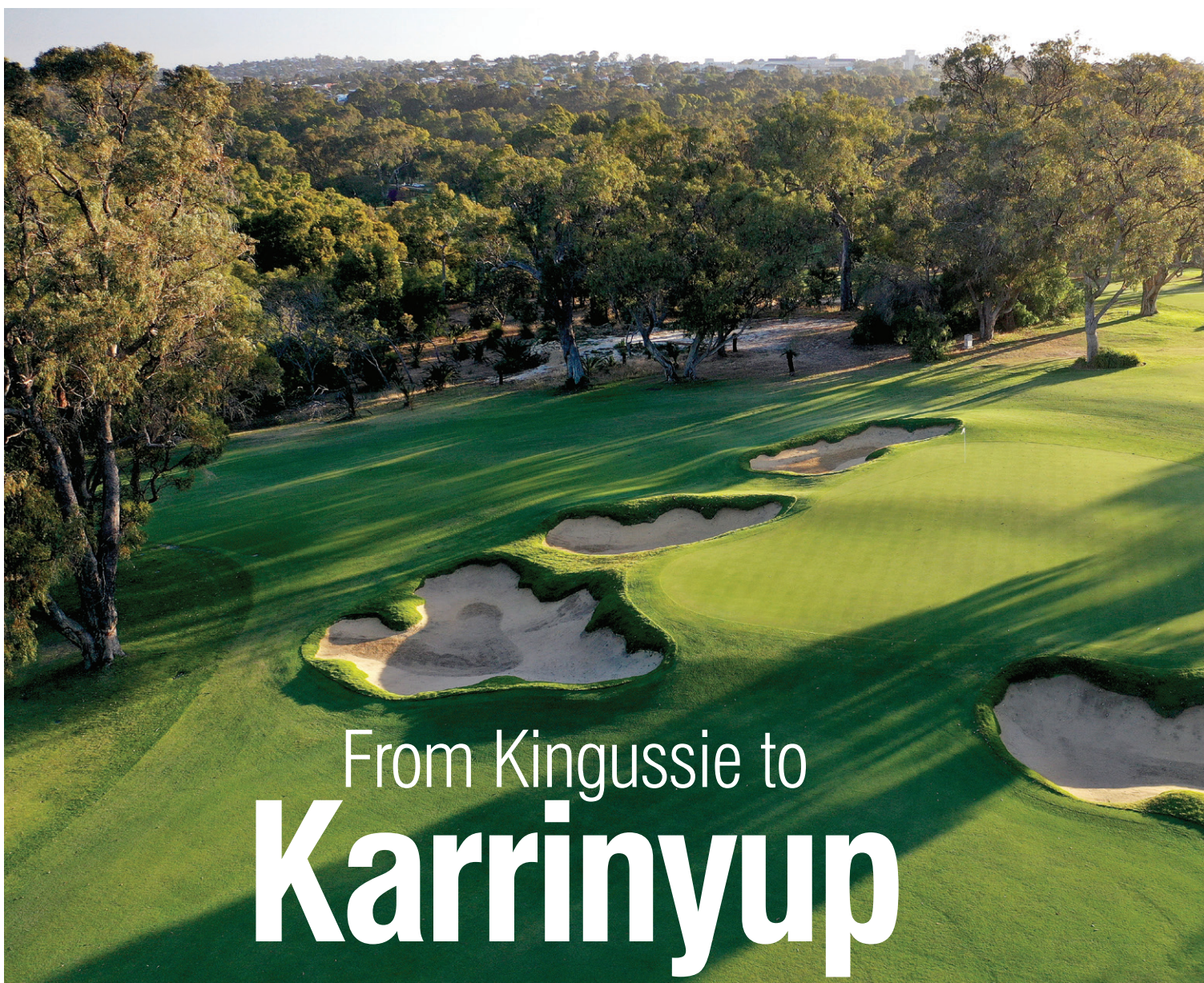


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# From Kingussie to Karrinyup

*In his latest turf management leadership profile, ATM columnist Ben Gibson catches up with Lake Karrinyup Country Club superintendent Fraser Brown.*

**T**he Highlands of Scotland could not be further removed from the coastal plains of Western Australia, but for Lake Karrinyup Country Club superintendent Fraser Brown they hold an equal place in his heart as a sports turf manager. Born and bred in golf's traditional heartland, where he grew up playing the traditional sport of Shinty and barracking hard for his beloved Rangers Football Club, Brown is a proud Scotsman who now finds himself a whole world away as custodian of one of Australia's most iconic golf courses.

It has been a two-decade journey for the now 38-year-old and after cutting his teeth at his home course in Kingussie, Brown broadened his horizons, took some risks and, as you will read below in this edition's

leadership profile, has reaped the benefits. Brown's route to the top of the profession has certainly not been via a traditional route, and has provided plenty of challenges along the way, but it has equipped him with a unique skillset that has enabled him to carve out a successful and rewarding career to date.

**How did you end up in turf? Did you choose turf or did it choose you?** Growing up in the small town of Kingussie in the Highlands of Scotland, the local golf club was one of the focal points of the town. My family were members there and a lot of my youth was spent at the club. At the end of high school most of my friends were planning to attend university, however, I wanted to get into the workforce much earlier than that. After

graduating from high school, I was offered a seasonal position at another local club, Newtonmore Golf Club, through my cousin who was an apprentice there. This gave me a great insight to the job and confirmed it was what I wanted to do.

The start to my career wasn't through the traditional apprenticeship route. Unfortunately my home club was fully staffed and couldn't take on an apprentice, so I decided to enrol myself into a full-time greenkeeping course that required me to move to live onsite at Elmwood College in Cupar, Fife. This turned out to be a blessing in disguise. The full-time education there was excellent and not only did we learn the technical aspects, we also spent a lot of time on subjects like the history of golf and golf course architecture which gave me a





*Since late 2016, the iconic Lake Karrinyup Country Club in Perth has been home to course superintendent Fraser Brown*

rounded view and passion for our industry that lives with me today. The other advantage was we had the time for field trips. Being based in Fife, it meant we were able to make frequent visits to St. Andrews, Kingsbarns, Ladybank, Crail and many other fantastic links courses.

At the end of my studies, I was excited to get out into the real world and use my new qualifications. I had spoken to a number of clubs in the UK but luckily a greenkeeping job came up at my home club, so I took the safe option and moved back home.

**How did you end up Down Under?** Again, not via a traditional route! Within a couple of years and still only 21, I had progressed to deputy head greenkeeper at Kingussie. It was a role I loved and being close to friends and family was great, but I had ambitions to continue developing my career. In 2009 I made the bold decision to accept a role at Kyiv Golf Club in Ukraine as part of their team to construct and grow in a new 18-hole Championship Course, in addition to maintaining the existing 18-hole course and practice facilities.

In hindsight, it was the most irrational but best decision I have ever made. The following two years were life-changing, both professionally and personally. The work was interesting and across the site we would have had in excess of 60 staff on a daily basis. I was part of a small, experienced Western European crew of five, with the rest of the staff being local and non-English speaking, apart from our on-course translator. The difference in language, culture, salary and experience meant it was always a lively workplace!

PHOTO: LKCC/GARY LISBON



*Brown enjoys his golf and collected the stableford trophy at the 2022 ASTMA Golf Championships*

The courses were located in a small town called Makariv, which was around an hour outside of Kyiv. Our small team were the only English-speaking residents in the town so that made life very interesting to say the least! However, living and working in such a small, tight-knit group meant we shared some great times, particularly socially! I was contracted until the opening of the Championship Course which we completed on time and left behind a well-trained local maintenance crew, many of whom moved onto other eastern European golf courses or major sports stadiums.

Randomly, during my time in Kyiv, my head greenkeeper always talked about his positive experience working as part of the construction team at Kalgoorlie Golf Course in Western Australia during a break in the

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*Where it all began for Brown... Kingussie Golf Club in the Highlands of Scotland*

Ukrainian winter. It sounded intriguing so I decided to pursue that further and after a few emails to McMahons I was offered a role at the newly-opened course which included visa sponsorship.

I finished in Kyiv in November 2010 and I was due to start in Kalgoorlie the following March, which left me free for a couple of months. Through a GM contact I was offered the chance to spend January 2011 in Bahrain to help prepare The Royal Golf Club for their first European Tour event. Mark Hooker (now Royal Auckland and Grange GC, NZ) was the superintendent and was a class act managing a huge staff and preparing the redeveloped course for the event. Again, working with new cultures was great for my growth, both professionally and personally. After the event I returned back to Scotland to pack up and depart for Kalgoorlie without really knowing what I was letting myself in for!

**How did you transition to life as a greenkeeper Down Under, especially at a course as unique as Kalgoorlie?** Within 18 months of arriving, I was offered and accepted the superintendent role at Kalgoorlie. It is an unbelievable course with so much potential, but at the same time it is as challenging an environment for golf course maintenance

as you will find anywhere. I inherited a fairly disjointed team and over my time there built a strong team. One of my main methods of improving the depth of the team was to pitch Kalgoorlie as a great stepping stone facility. We were hosting professional events – we held five Western Australian PGA Championships in my time – and just managing a course to that level and scale in such challenging circumstances was a great learning curve for any greenkeeper who came out.

Unfortunately, the pitch wasn't received as well within Australia as it was from overseas. We ended up taking on a number of really good greenkeepers on sponsored visas. Many of these people did their time and went on to bigger and better things, with former Kalgoorlie Golf Course employees going on to manage courses in Australia, New Zealand, England and across the Middle East.

Kalgoorlie was always a challenge – the turnover in staff due to the remote nature of the town, the climate, the native sands and the use of effluent water were just some of the challenges faced on a daily basis trying to maintain a world-class desert course with bentgrass greens. I loved my time in Kalgoorlie, but when the opportunity came up at Lake Karrinyup Country Club (LKCC) it was a case of the right job at the right time.



My son, Aleksandr, had just been born in Kalgoorlie and the plan was always to make the move before he got to school age. The opportunity to move to Perth and take on the role at a facility such as Lake Karrinyup was a privilege. The interview process was as detailed as I have experienced, but it gave the club and I a great opportunity to understand each other and what we wanted to achieve.

I am really enjoying life at such a great club and the opportunity to influence the future of an iconic Australian golf course. Life in Perth is great. It has a great feeling and the climate is certainly better than the Highlands of Scotland! Since moving down to Perth, my daughter, Viktoria, was born here.

**I know you manage full-time work, family and are also studying as well! What are you studying?** Yes, it can feel like a lot sometimes,

but I enjoy a busy life! I am currently undertaking the three-year HNC Golf Course Management course online through Elmwood College. In the last two years my ex-partner and I have separated and we now share custody of the children which has been very rewarding. In the past I probably did not get the work-life balance right and it meant I was not as present as I could have been, so having the chance to change that has been great. However, lunchboxes, school runs, tantrums and homework is exhausting!

I have also met a new partner, Moira, and we have been together for 18 months now and she has been such a positive influence on both me and the kids. As well as being an all-round great person, Moira is also successful in her own career while maintaining a strong work-life balance, so is always there to offer me advice when I need it.

**What do you do for fun?** Between work, family and my studies, I don't have a lot of free time but when I do I enjoy playing golf, cooking and travelling, but above all else following Rangers. Rangers are my football team from back home and I attended games ever since I was about seven years old. Even now I try to watch every game live, even though the time difference between Perth and Glasgow proves a challenge! In the last year I managed to make a short four-day trip to Seville, Spain to watch them play in the Europa League final. Unfortunately the result went the wrong way, but it was still a fantastic time watching my team in the sun along with my brother and friends from Scotland. A couple of months later, I was lucky enough to be back home for The Open at St. Andrews so took the opportunity to take Moira and Aleksandr to their first Rangers game at Ibrox Stadium.

*In what he describes as one of the most irrational yet rewarding decisions he has ever made, Brown spent 16 months working at Kyiv Golf Club in Ukraine*



*Brown's first experience of greenkeeping Down Under came at Kalgoorlie Golf Course in Western Australia. He would spend almost six years there, including nearly four as superintendent*

My other big passion is a traditional Scottish sport called Shinty. It is a very quick and physical ball game played with sticks. I played the sport from an early age and progressed through to being captain of the reserve team and on the verge of breaking into the first team when I ruptured my ACL. It took four years and two operations before it was finally reconstructed, but by that time I had moved abroad so I never got back to playing. The competitive nature of the club I played for was a huge influence on my life. It was quite different from the inclusive sports that are encouraged nowadays. Every game or training session was competitive and must-win. To this day I am overly competitive, even when I am playing with the kids in the back garden!

**What is at the top of your priority list as a golf course superintendent?** In a very basic overview, I consider my role the responsibility to produce conditions that the members deserve and can enjoy on a consistent basis. This is achieved by providing the best environment for my team to undertake their work and use their skills.



In the superintendent role we deal with people and the environment, so there are good days and bad days. We see the work that goes on behind the scenes and the hard work that goes into preparing the courses for play on a daily basis. It can therefore be demoralising to have to respond to sometimes unreasonable critics discussing issues that on the scale of things are minor or unachievable.

It can be challenging mentally, but something that I feel is critical is that I am the filter for that type of noise. In an industry that often underpays qualified tradespeople, we

rely on job satisfaction to keep these people motivated and if I am happy with the quality of their work, they do not deserve to have that job satisfaction taken away from them from outside unfair comments.

**What sort of leadership team do you have at LKCC? How do you structure and delegate your work? How do you get it all done?** I am lucky to have a great team at Lake Karrinyup. As well as the great people on the tools, I have a very experienced leadership team consisting of Jarrod Boyce (assistant superintendent),



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*Brown with daughter Viktoria (left) and partner Moira with son Aleksandr (right)*

Rick Raison (turf equipment manager), Nigel Fitzpatrick (irrigation technician), Daytan Milne (foreman), Rob Williams (course training coordinator) and Hayley Argiropoulos (course administration). Between them there is over 100 years of experience at Lake Karrinyup.

As mentioned, my role is to enable my leadership team by providing an environment that helps them to use their skills and experience to maximum effect. In terms of getting it all done, we don't! I think that is an important aspect of the culture we have in our team – even when we are happy with the conditions we provide members, we are always looking at what we could do better.

#### **Who has influenced your career and why?**

I have been lucky to have had many positive influences throughout my career, from college lecturers and bosses to people who have



worked under me. The person with the biggest influence on my career would definitely be Steve Jones, who was my superintendent in Kyiv. In his role there he was under enormous pressure. Not only did he have to manage a huge non-English speaking team and deal with a challenging environment on course, he also had the additional pressure of dealing with his managers who were all Ukrainian and worked within a typical Soviet-style structure. Despite the pressure, the way he treated me was first class. In my first 24 hours in Ukraine I was ready to get on the next plane home, but then I met Steve and he took me under his wing.

Without doubt my time in Ukraine was life-changing and without Steve's influence I could not have finished my contract there. His ability to filter that pressure from above and still treat me as he did was a great example of how I want to treat people. Steve is also an excellent

mechanic so once our time in Kyiv came to an end, I hired him at both Kalgoorlie and Lake Karrinyup! He is also godfather to my daughter Viktoria and gave a great reading in church!

**What is the biggest mistake you have made and what did you learn from it?** I have made many mistakes or bad decisions in my career, but to be honest I don't have anything in particular that stands out. Everybody makes mistakes, so it's important to make the best of the consequences but also try to understand the mistake and what led to it so you can continue learning and improving.

**What do you feel are some of the biggest challenges facing the turf industry at the moment and what sort of action do you feel is needed?** I think the biggest challenge facing the Australian golf industry as a whole is how we staff our golf courses in the future. We are going to find it harder and harder to attract and retain young people in the industry. In terms of trades, greenkeeping is, generally speaking, one of the lowest paying. We ask young people to complete a four-year apprenticeship on reduced wages for the right to become qualified, to then take on extra responsibility, early starts, working outside in all conditions while still earning less than the restaurant staff in the clubhouse. In the current world, young people have access to information quickly and they are more aware of their potential value than ever before. This is particularly an issue in Western Australia where young people know that there are always well-paid mining jobs for capable candidates.

Our industry is critical to the success of golf. Courses across this country are held in such high regard on a world stage and to a large extent that is down to the passionate greenkeepers who understand the nuances of their courses and their drive to push the highest standards. In my leadership team alone we have over 100 years' experience at the club, but in 20 years' time that could look very different. The impact this could have on Australian golf is potentially huge.

**Finally, any advice for younger staff in the turf industry looking for their next opportunity or building their careers?** My advice for younger staff would be to take control of your own career, don't wait for somebody to hand it to you. The successful people I know in our industry are self-driven. That could be as big as deciding to apply for that job to take the next step in your career or as small as asking to be trained on a piece of equipment you haven't used yet. At the end of your career, you will have people who influence your path, but ultimately how successful you have been will depend on how much you have pushed yourself. 🏌️



*Brown relies upon an experienced leadership team to keep Lake Karrinyup in top condition*

PHOTO: LKCC/GARY LISBON





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GOLF

***“We took one of the new GPS spray units out the other day as a trial and saved about 25% of what we would’ve used with the previous equipment.”***

Terry Vogel,  
Cobram Barooga Golf Club  
Course Superintendent.

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# INNOVATIVE 'BLIND SHOT' WARNING SYSTEM TO LAUNCH AT ADELAIDE CONFERENCE

The upcoming Australian Sports Turf Management Conference Trade Exhibition in Adelaide (21-22 June) will feature a range of new products and services available to Australian turf industry professionals. One of the more unique and innovative products that will be on display is the 'Blind Shot' warning system which has been rolled out at a couple of Sunshine Coast golf courses in recent times.

Outback camera specialist Land Watch Australia (LWA) has developed a new high-tech warning system to improve player safety on courses featuring blind tee shots or approaches to a green. Called 'Blind Shot', the system uses strategically-placed smart cameras to trigger a warning light at the tee or playing area when golfers are in the course of play and obscured from view.

Queensland-based LWA is an ag-tech company specialising in wireless security systems to monitor stock and prevent theft on large, remote cattle stations. LWA director John Hill says the 'Blind Shot' concept uses the same technology used to monitor cattle in the outback to monitor players on the course.

Developed in collaboration with Maleny Golf Club, the 'Blind Shot' system replaced an existing light system that the club employed. LWA and 'Blind Shot' added valuable productivity and course security bonuses with remote access to the camera view for staff. Maleny superintendent Mick McCombe says the club wanted a "minimalist and bullet-proof safety-solution" which didn't rely on players climbing up onto viewing platforms or signalling the all-clear by ringing a bell.

"The camera locations also enable us to remotely check on the progress of play and make workflow decisions without having to physically go out and check," says McCombe.

Nearby Headland Golf Club has also installed the 'Blind Shot' system on one of its problem holes to help speed up play. 'Blind Shot' will launch nationally at the 2023 Australian Sports Turf Management Conference Trade Exhibition in Adelaide. Visit Stand 13 during the trade exhibition or for more information visit [www.blindshot.au](http://www.blindshot.au).

## WALLIS ENVU TERRITORY BDM



ASTMA Gold Partner Envu has appointed **Scott Wallis** (pictured) to the role of territory business development manager (Turf & Ornamentals) for its Queensland and South Australian business units. Based in Brisbane, Wallis comes to Envu with over 20 years of experience working in the turf management industry and started his new role on 8 May. Wallis's career has been highlighted by over a decade at the Queensland Rugby Union and more recently with Toro Australia servicing their Queensland and WA markets.



*The 'Blind Shot' golf course warning system has been trialled successfully at Maleny Golf Club*

Wallis, who served on the Sports Turf Association of Queensland committee for six years between 2009 and 2015, will be building on the efforts of Wayne Ryder who has moved to a similar role within Envu's Vegetation Management business segment.

"We are very happy to welcome Scott to Envu," says James Royal, Envu's national sales and marketing manager (Turf & Ornamentals). "Scott's background is clearly demonstrative of well-established industry relationships, agronomic knowledge and a track record of delivering customer centric solutions." Wallis can be contacted on 0499 986 368 or email [scott.wallis@envu.com](mailto:scott.wallis@envu.com).

## JOHNSON JOINS RAIN BIRD



ASTMA Silver Partner Rain Bird has announced the appointment of **Casey Johnson** (pictured) to the role of area manager for the company's golf strategic

business unit. Johnson, who has been in the golf industry for over 30 years, will manage the Victoria, South Australia and Tasmania regions. Johnson brings a wealth of experience, having spent almost 25 years previously with David Golf, including the past 12 as national sales and marketing manager.

"I am really looking forward to joining the Rain Bird golf team and the opportunity to work closely with exclusive golf products distributor and ASTMA Silver Partner Living Turf," says Johnson. "Rain Bird has a well-known reputation for having industry-leading technology and unmatched quality and I can't wait to start promoting all the company's products and solutions."

Johnson continues to be based in Melbourne and started his new role on 29 May. He can be contacted on 0417 126 183 or email [cjohnson@rainbird.com.au](mailto:cjohnson@rainbird.com.au).

## NUTURF'S NEW RECRUITS



ASTMA Bronze Partner Nuturf announced the appointment of two new territory

managers in April, with **Andrew Kinnear** (pictured left) and **Nathan Andrews** (pictured right) joining the company. Andrews, who started his new role on 11 April, is based in Melbourne, while Kinnear assumed the southeast Queensland region role on 26 April.

Andrews, the STA Australia Sports Turf Graduate of the Year Award winner in 2018, began his career as an apprentice turf manager at Citywide Service Solutions, progressing to become a team leader. During this time he gained vital knowledge of local government policies through working closely on several major contracts. Andrews can be contacted on 0409 994 340 or by email [nathan.andrews@nuturf.com.au](mailto:nathan.andrews@nuturf.com.au).

Kinnear has over a decade of experience in turf and greenspace management across golf clubs, sports fields, resorts and general property maintenance throughout Queensland and Western Australia. He was most recently the project officer of turf services (2IC) at Austspray Environmental Weed Control. Kinnear can be contacted on 0419 824 553 or email [andrew.kinnear@nuturf.com.au](mailto:andrew.kinnear@nuturf.com.au).

## GTS APPOINTS SIMS

ASTMA Bronze Partner Greenway Turf Solutions (GTS) has added **Josh Sims** as a technical field agent based in Orange, NSW. Prior to joining GTS, Sims was course superintendent at Wentworth Golf Club and before that was employed by Orange Ex-Services Club.

"Josh is a true asset to the team," says GTS NSW sales manager Phillip Cooper. "His enthusiasm and dedication to the turf industry are infectious. Josh is a country NSW local and it's great that we have been able to employ a local in this region." Sims can be contacted on 0418 887 929 or email [josh@greenwayturf.com.au](mailto:josh@greenwayturf.com.au).

## MCINTOSH TO ASTC



**Cameron McIntosh** (pictured) has joined Australian Sports Turf Consultants as a sports manager and administrator with over 12 years in the field both nationally and internationally. McIntosh has previously worked with numerous organisations in the planning, implementation and delivery of best practice sporting projects. 🏌️



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**Lachie Macaulay**  
Kings School



# VGCSA

On 4 May, the VGCSA held its 96th Annual General Meeting at Sorrento Golf Club on Victoria's Mornington Peninsula. The event was very well attended, with golf championships in the morning followed by a formal luncheon and AGM in the afternoon. A course walk was held for those not playing golf.

Guest speaker for the event was AFL Hall of Fame sports journalist **Mike Sheahan**. Mike spoke for over an hour, recalling stories of his time as head sports writer for the Herald Sun and broadcaster on FOX Footy with his 'Open Mike' program.

Congratulations to Moonah Links course superintendent **Kyle Wilson** who collected the coveted Powell Trophy, posting a nett 74 to beat Southern Golf Club's **Shaun Page** by one shot. **James Robilliard** (Yarra Bend GC) posted 40 points to win the Toro Cup by two from Commonwealth Golf Club's **Hamish Buckingham**, while David Golf's **William Stewart** topped the trade field by claiming the President's Shield with 37 points. Nearest the pin prizes went to **Adam Lamb** (Commonwealth GC) and **Brett Balloch** (Anglesea GC), while **Sam Langford** (Heidelberg GC) won longest drive. Thank you to Toro and Greenway Turf Solutions for sponsoring the golf and providing the wonderful prizes.

Official AGM proceedings included the announcement of the VGCSA committee for 2023 and it was with great pleasure that we announced **Geraldine O'Callaghan** (Sandringham Golf Links/Royal Melbourne GC) as the first female committee member in nearly 100 years of the VGCSA. We are so excited to have Geraldine on board and look forward to working with her in the years to come. A warm welcome also to **Nicholas Douglas** (Cranbourne GC) who joins the committee as a young superintendent, bringing with him a lot of enthusiasm.



PHOTO: SUE WILSON

*It was a memorable VGCSA AGM for Moonah Links superintendent Kyle Wilson, winning the coveted Powell Trophy and receiving a VGCSA Recognition Award for his many years of industry service*

The full VGCSA 2023/24 committee is:

- **President:** Shane Greenhill (Sorrento GC)
- **Vice president:** Travis Scott (Riversdale)
- **Secretary:** Tay Wilson (Koorlingal GC)
- **Treasurer:** Adam Lamb (Commonwealth)
- **Committee:** Jeff Powell (Ballarat GC), Clint Raven (Yarra Yarra GC), O'Callaghan and Douglas.

Stepping off the committee at the AGM was former vice president **Simon Muller** (The Dunes Golf Links) and we thank him very much for his time and commitment to the VGCSA in recent years.

The VGCSA Awards presentation was also a significant component of the AGM with the announcement of 2023 VGCSA Recognition Award winners – superintendent member **Kyle Wilson** and trade member **Gavan Hegan** (Nuturf). VGCSA Golf Turf Apprentice Award winner **Solly Marshall** (Kingston Heath GC) was also presented his award on the day

and will now represent the association in the final of the ASTMA Graduate of the Year Award, presented in partnership with Toro, to be adjudged at the upcoming Adelaide conference (read more about this year's graduate finalists on page 46 – Ed).

Alongside this, Solly attended the one-week VGCSA-John Deere New Zealand Scholarship residency in April at Tara Iti Golf Club, FMG Stadium and Tieke Golf Estate. Open to assistant superintendents, 3ICs, turf tradespersons and apprentices, a second residency placement was also afforded to **Mitchell Novak** (Yarra Yarra GC).

In the last 12 months the VGCSA has met with Golf Australia twice at their new headquarters in Sandringham. Discussions have revolved around (but not limited to) issues facing superintendents today including staff attraction and retention, the increasing costs of running a golf course, mental health of superintendents and staff, COVID and its impact on clubs and the lack of trial and research in the Australian golf industry. I am pleased to report we had the receptive ear of Golf Australia and as this edition was going to print we were to meet them again with other state associations.

The VGCSA Centenary Publication is underway with notable Australian golf journalist **Rohan Clarke** to author the publication. **Colin Winterton** (Medway GC) has kindly agreed to act as newshound and help interview past superintendents to formulate stories of days gone by.

Finally, I would like to acknowledge VGCSA chief executive **Mary Napier** once again for her hard work, commitment and dedication. Mary has continued to ensure the smooth operation of the VGCSA as well as help the association improve and grow.

**SHANE GREENHILL**  
**PRESIDENT, VGCSA**



*Left: Sorrento Golf Club played host to the 96th VGCSA AGM in early May*

*Below: Sorrento superintendent Shane Greenhill conducted a course walk, outlining management operations and recent works*





Last month the NSWGCSA adjudged the Vince Church Graduate of the Year Award at Northbridge Golf Club. The judging panel comprised of NSWGCSA life member **Malcolm Harris**, vice president **Peter Donkers**, Board director **Jake Gibbs** and committee member **Mandy Henry**. The nominees included **Austyn Layton** (Wyong GC), **Catherine Jongkind** (Mudgee GC), **William Armstrong** (Monash CC), **James Elphick** (Gunnedah GC) and **Jackson Lanning** (Killara GC).

The NSWGCSA is delighted to confirm that the winner of the 2022 NSWGCSA Vince Church Graduate of the Year, sponsored by Jacobsen and JT Turf, is Jackson Lanning from Killara. Jackson studied at Ryde TAFE and was an outstanding candidate who presented himself extremely well and demonstrated a clear commitment to the industry.

On winning the award Jackson said: "I am truly honoured and incredibly humbled by this award from the association. I have enjoyed my time within the industry so much and I look forward to contributing to it for a long time to come. Again, thank you all for this award."

This year the NSWGCSA decided that one of the nominees, who didn't win, deserved special recognition. As a result, we created and sponsored an Encouragement Award. This was awarded to Austyn Layton from Wyong Golf Club, who studied at Kurri Kurri TAFE. He impressed the judges with his passion and dedication.

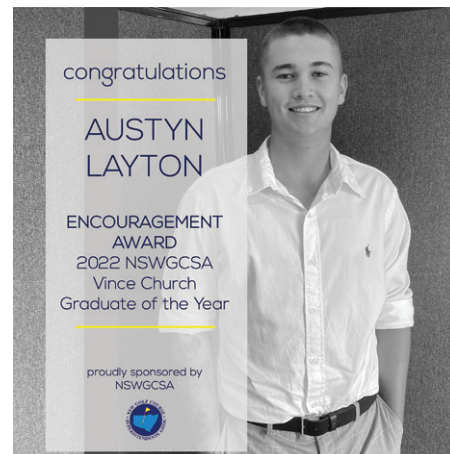
The association has never given a secondary award for the Vince Church Graduate of the Year, but we all felt that Austyn deserved encouragement and recognition. Austyn said: "I feel so honoured to have



been the first person to receive this award. It goes to show that hard work pays off and I am happy to see that has been recognised." Congratulations to both Jackson and Austyn – it's really great that we can recognise them for their hard work and dedication.

Last year at our annual service awards, **Mark Ward** (Elanora CC) received the Outstanding Performance and Dedication Award for employees who achieve outstanding work performance and demonstrate continual commitment and dedication for their prospective clubs. In winning the award, he secured funds towards an educational trip which saw him head to Augusta National Golf Club. He is currently writing an article for us which will feature in the next edition of the NSWGCSA magazine. We look forward to reading it.

**James Newell**, course superintendent at Magenta Shores Golf and Country Club, will be representing the NSWGCSA on a panel at the NZGCSA's 2023 Fine Turf Seminar in June. He



also hosted us for our John Deere | Land HQ annual Ambrose Day which was being held as this edition was going to print. It was a great day and a full report will be included in the next edition of ATM.

Our teams are busily preparing their respective courses for the winter period, while other clubs are finishing, in the middle of or starting new projects. Newcastle Golf Club recently finished their driving range facility, Cromer just opened their new short game practice area and Pymble is nearing the end of their impressive course renovation. Long Reef has started bunker masterplan works, reducing 74 bunkers down to 41, Wakehurst is constructing new greens and tees this winter, while the much-anticipated Royal Sydney rebuild is gearing up for the green light as of January next year. As always, it remains a busy and productive time around the traps.

## LEON HENNESSY PRESIDENT, NSWGCSA

## STA NSW

The popularity of the Wicket 101 accreditation program continues to be strong as the first event of the year was held at Mona Park in Auburn. The majority of the participants were new to wickets and Wicket 101 gave them a great opportunity to learn from industry experts and get hands-on experience. It was great to see Sydney locals attend, but we had others come from far and wide, with a crew from Snowy Valleys Council in Tumut, Shoalhaven, Blue Mountains and one delegate even travelled from Melbourne.

The group were enthusiastic and soaked up all information, with feedback being very positive. Many thanks to **Brian O'Connor** (Cumberland City Council) for his assistance. We will hold more Wicket 101 events during the year, while Wicket 201 is on 11 October.

At the recent Syngenta Turf Innovation Live Seminar in Sydney, the statement was made that as an industry we aren't very good



STA NSW recently conducted its Wicket 101 day

at promoting the positives of our industry to people outside of sports turf. In addition, looking at the technologies being developed for future sports turf managers, there could be opportunities to attract people that aren't our traditional market. The future looks exciting and as a green industry we all need to promote that and continue to look for staff outside the square.

Education and industry attraction is an important focus for STA NSW and we are pleased to support the International Greenkeepers for Hire at their stand at an upcoming careers expo in western Sydney. This will be an opportunity to reach thousands of students and plant the seed that the turf industry is a great option for a career and contribute to a greener environment.

Following on that theme, as we work towards selecting a NSW sports turf graduate, it has been great to connect with the three NSW TAFEs that run sports turf management courses – Kurri Kurri, Ryde and Yallah. Numbers seem to be strong across the state and we will work with the TAFEs to provide industry support for the students so they can build their networks and further their careers.

## JENNY ZADRO EO, STA NSW



## TSTMA

As we see the tail end of another beautiful autumn in Tasmania, we prepare for winter and the unknown that it always holds for us down here.

On a positive note for the industry, we have seen an increase in the number of apprentices in recent times. We all know the issue surrounding recruitment and retention which is being experienced nationally, so the jump in apprentice enrolments holds some promise for the future here in Tasmania.

One of the success stories in the golf course space has been 2022 TSTMA Graduate of the Year **Mack Blazely** who has taken over the reins at Launceston Golf Club. Mack replaces **Scott Reid** who has taken up a position with TasTAFE. We wish both gentlemen all the best in their respective roles.

A big thank you to the ASTMA and Toro who sponsor the ASTMA Excellence in Sportsfields and Grounds Management Award. Recipient for the award at last year's conference in Melbourne was Blundstone Arena head curator **Marcus Pamplin** who used the award prizemoney to attend the recent SGL Conference in Munich, Germany.

On top of this, it gave Marcus the opportunity to visit the headquarters of SGL in Amsterdam as well as tour around England to visit Test venues for this year's Ashes Series – Lords, The Oval, Old Trafford and Edgbaston. This gave Marcus a terrific insight into how these venues manage their hybrid pitches and those pitches housed in marquees, as well as



*The Oval in London (top) and Bayern Munich's Allianz Arena (above) were among a number of major venues visited by Marcus Pamplin during his recent study tour*

how they manage their playing surfaces with the use growth lights.

As part of this professional development opportunity, Marcus was also fortunate to visit some of the elite soccer stadiums and training facilities in London, Manchester and Liverpool. A huge shout out to **Danial Bridges** from SGL for his amazing hospitality and organising access to these state-of-the-art venues.

## TSTMA COMMITTEE

## TMSA

Since our last update, the focus has been on a series of upcoming events up until the year's end. As this edition was going to print, we were eager to see how our inaugural golf day was going to play out (no pun intended) on Tuesday 23 May at Thaxted Golf Club. It was set to be a lot of fun with various prizes on the line for the teams that registered to play. Some of our sponsors were also going to be present for networking opportunities.

For those of us fortunate enough to attend or watch on television the LIV Golf Adelaide tournament at The Grange Golf Club over three days in late April, it was a huge success. Congratulations to course superintendent **Rowan Daymond** and his team for presenting the course in excellent condition which received worldwide recognition. To see the different types of spectators and the interaction between players and fans was amazing, so different to traditional golf events. The vibe and atmosphere was incredible and memorable. (See ATM's full coverage of the tournament earlier this edition – Ed.)



*Coopers Stadium will hold a TMSA day in June as it gears up for the FIFA Women's World Cup in July*

On Wednesday 14 June there will be a 'walk and talk' event at Coopers Stadium which is one of six Australian host venues for the upcoming 2023 FIFA Women's World Cup. Turf maintenance manager **Simon Sczesny** will provide firsthand details on the recent upgrades undertaken to prepare the venue, to be known as Hindmarsh Stadium during the tournament, to host its five World Cup matches. Also presenting on the day will be **Erik Kinlon** from HG Turf Group which will

## GCSAWA

It has been a slow start to autumn and winter weatherwise over in the West, but still very much welcome. Perth has had 57mm of rain over March and April with day-time temperatures still up in the mid-high 20s.

This time of the year sees a number of trades start their demo and education days. In the space of a week we had the Syngenta Innovation Live Tour, a McIntosh and Son demo day and two days of GTS education. It was great to see so many people from all sides of the industry attend and support the trades, especially all the apprentices who were there.

In early May, Bunbury Golf Club hosted a barbeque with many making the trip from the south west and Perth for a long overdue catch-up and first glimpse of their brand-new maintenance facility. The new shed was definitely needed and a long time coming for superintendent **Dave Brennan** and the team down there. In mid-May we had our annual Trade Challenge, with 18 trades entering the Ambrose event at Secret Harbour. A big thanks to all the trades too who sponsored many of the holes.

I'm looking forward to the ASTMA conference in Adelaide. A couple of us from WA are heading over a few days early to visit some of the courses around Adelaide before the conference begins which we are really looking forward to. Hope to see you all there.

## SHANE BAKER PRESIDENT, GCSAWA

be on site stitching SISGrass into the playing surface.

The Annual Turf Seminar will once again be held after a brief hiatus at The Grange Golf Club on 26 September with **Greg Chappell** as a keynote presenter. The program will be released shortly and we look forward to working with our sponsors and presenters to make this a successful event. And to cap off the year, we will hold our inaugural Annual General Meeting combined with a Christmas social event in November.

Finally, we congratulate our two inaugural TMSA Graduate of the Year Award winners. Royal Adelaide Golf Club's **Sophie Hamdorf** (golf) and Sunnyside Instant Lawn's **Marc Shaw** (sportsfields and grounds) will contest the respective national graduate award finals, the winners of which will be announced on the opening night of the upcoming Australian Sports Turf Management Conference here in Adelaide. We wish them both all the best.

## NATHAN BENNETT ACTING CHAIR, TMSA



2023 is well underway and the GCSAQ committee has been working on a number of upcoming events for members. The GCSAQ is proud to again be a sponsor of the Paddock to Pitch event to be held by Turf Queensland on Wednesday 14 June at Tinamba Turf Farm. All GCSAQ members will receive free entry to this event. Full details regarding the event can be found on the blog section of the GCSAQ website. GCSAQ members can also secure their tickets on our website.

The association is co-hosting the Gold Coast Sports Turf Leadership Forum 2023 and all GCSAQ members are invited to attend at no charge. This event is being held on Thursday 3 August. Visit [www.gcsaq.com.au](http://www.gcsaq.com.au) for full details and to book your ticket. Please note that numbers are strictly limited for this event.

I would like to take this opportunity to remind everyone about the importance of safe empty chemical drum storage procedures. This is essential for workplace health and



*Unlike the example pictured, it is important that empty chemical containers are correctly washed and stored prior to being collected*

safety and the principle of safe storage is first and foremost the responsibility of those staff working with chemicals. drumMUSTER provides a fantastic service collecting empty

drums throughout Queensland. However, for their own safety, they will only take drums that are correctly stored and washed for collection.

If contaminated drums work through the recycling process, they can create significant WHS issues in the recycling plants and can see product landfilled which was what the program was designed to prevent. Storage of clean drums is as important as the cleanliness standard. Please take this opportunity to communicate to your teams the importance of following the correct procedures for drum storage and disposal.

The GCSAQ is proud to have a large number of sponsors on board again for 2023/24. Thank you to our sponsors; you make our association possible. Please visit our website for a full list of current sponsors which are being finalised as this edition was going to print. Happy golfing!

**PAUL MCLEAN**  
PRESIDENT, GCSAQ

## TURF NSW

**Turf New South Wales**  
Golf Course

The production of a video on the impacts of the 2021-2022 floods started recently with visits to turf farmers in the Hawkesbury, Hunter, Taree and Tweed areas. The growers were very generous with their time and sharing their experiences during such a difficult period that put such a financial, physical and mental strain on their business and themselves.

I am always in awe of the resilience and commitment of turf farmers in the face of adversity. As family businesses, these challenges impact each member of the family and the business differently, but they continue to review their farm operations and work hard to get the farms back up and running. Many aren't back to full operation as they are still experiencing issues with harvesting and rolling the turf on some paddocks.



*Taking part in the recent filming were Kai, Aiden and Earl Stanley from Earl's Turf in Taree*

Research is underway on a number of issues growers deal with post-flood such as silt impacts and turf recovery. Strong evidence is developing on which grasses cope with floods and have a better chance of recovery. In addition, some interesting findings are coming through from the recovery applications that are showing faster regrowth than expected. This

could be very interesting also for sports fields impacted by excessive wear. More to come...

Turf NSW understands the value of collaborating with other state organisations and we are happy to be working with STA NSW to develop an industry seminar and field day. We look forward to bringing this event together and building a stronger relationship with sports turf managers in NSW.

Finally, new Turf Australia CEO, **Matt Lunn**, spent some time in Sydney recently and we were pleased to welcome him to the Hawkesbury to get a better understanding of the uniqueness of the turf industry in NSW. Nowhere else in the country is there such a high volume of producers in the one location.

**JENNY ZADRO**  
EO, TURF NSW

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## ACTSTMA

On Monday 1 May the ACTSTMA held its annual golf day at Royal Canberra Golf Club. Unfortunately close to 80mm of rainfall over Saturday night and all of Sunday meant for a wet capital, but we were delighted with a strong turnout despite the conditions. Around 120 players teed it up on the day and the course held up great.

A massive thank you to Royal Canberra superintendent **Ryan Stores** and his team for their efforts in presenting the course despite the challenging conditions. A big thank you also to all our sponsors for the day and again everyone that attended and braved the weather. Prize winners were;

- **Scratch winners:** Brent Hull, Dave Thomson, Tim Watson and Scott Harris
- **Nett:** 1st – Stephen Foster, Luke Diserens, Luke Furness and Daniel Studders; 2nd – Chris Patrick, Daniel Brunner, Matt Hewat and Stuart Tharle; 3rd – Pitchcraft
- **Nearest the pins:** Scott Harris, Richard Winter, Kyle McLaurin and Brad Huender
- **Longest drive:** Richard Winter

In other news around the ACT, Federal Golf Club held a Pro-Am on 17 April which saw 125 players and celebrities teeing up. The Pro-Am was a great success and raised over \$65,000 for the Vinnies sleeping rough homeless appeal. Eighteen staff were on hand in the morning to prepare the course, including volunteer staff from Canturf, Cricket ACT and



*Despite damp conditions at Royal Canberra, 120 players turned out for the ACTSTMA Golf Day on 1 May*

Royal Canberra. Congratulations to Federal superintendent and ACTSTMA president **Peter Dunn** and his team on a great day.

I look forward to seeing everyone at this year's conference in Adelaide and wish our ACTSTMA Graduate of the Year Award finalists **Riley Willcox** and **Lachie Deep** all the best.

### SIMON SNEDDEN COMMITTEE, ACTSTMA

## STA VIC



*Kings Park in Seymour hosted the STA Victoria Regional Seminar in early May*

STA Victoria held its annual Regional Seminar at Kings Park, Seymour in early May. On a beautiful autumn day, around 70 turf managers from across Victoria came together to hear talks from a wide variety of speakers. Among those presenting were;

- **Frank Casimaty** – Benefits of TiTuf washed sod on wicket tables;
- **Kellie Massouras** and **Casey Southurst** – Emergency response and flood mitigation;
- **Damien Mitchell** – Impacts of flooding on high use sportsfields;
- **Bruce Macphree** – Post flood recovery turf management;

- **Mark Osbourne** – Good skin health practices for working outdoors;
- **Ken Hall** and **Rob D'Orriar** – Impact of 2022 flooding at Kings Park; and
- **David Thomson** – StrathAyr farm flood – The event, clean-up and ongoing effects.

I would like to thank everyone for attending and contributing to the success of the event. We now prepare for our major event of the year – the popular Sports Turf Seminar – which will again be held at the Melbourne Cricket Ground on Wednesday 12 July.

### MARK DOYLE PRESIDENT, STA VICTORIA

## TURF QLD

Turf Queensland's core mission is to ensure a resilient and sustainable turfgrass industry. For our 4th Paddock to Pitch event, to be held on 14 June at Tinamba Turf Farm near Beaudesert, we are bringing the field day back to grass roots with the theme of 'Growing the path to Sustainability'.

Following breakfast at 8am, the remainder of the day will feature a trade show, regular presentations and farm tours. Paddock to Pitch welcomes turf farmers and growers, landscapers and gardeners, sports field curators and golf course greenkeepers to come down and enjoy the day.

As part of this year's event, Turf Queensland proudly presents 'The Wintergreen Challenge', a turf judging competition for the best Wintergreen couch in the state. This is the first year we are running the competition and the winner will have the right to advertise itself as growing the best Wintergreen in QLD.

Turf growers will be able to submit two slabs of freshly harvested (within 24 hours) Wintergreen couch turf from the same paddock which will be assessed by a judging panel. One slab will be submitted for washing, while the other will be submitted for a complete slab judging. All slabs will be displayed for public viewing before being handed over to the five-person judging panel. Judging criteria is based upon the TAP quality standards for accredited turfgrass, with parameters such as uniformity and colour to be assessed.

For more information on the field day, follow Turf Queensland on Facebook @turfqlld or visit [www.turfqueensland.org.au](http://www.turfqueensland.org.au).

### REBECCA CROSS IDO, TURF QUEENSLAND

#### ON THE MOVE...

**ROBERT BAKER:** From superintendent Muree GC, NSW to assistant superintendent Hawks Nest GC, NSW.

**MACK BLAZELY:** The 2022 Tasmanian Graduate of the Year has been promoted from assistant superintendent to superintendent at Launceston Golf Club following the recent departure of Scott Reid to TasTAFE.

**SAM BUTLER:** From assistant curator Blundstone Arena, Tas to vegetation officer Commonwealth GC, Vic.

**JACK PARKER:** From 3IC Oatlands GC, NSW to team leader Blacktown International Sports Park, NSW.

**RHETT PINDER:** Resigned as superintendent Club Mandalay, Vic.

**JUSTIN RANKIN (CSTM):** From superintendent Kooindah Waters GC, NSW to a role with David Golf, NSW.





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