

CELEBRATING THE EFFORTS OF AUSTRALIA'S SPORTS TURF MANAGEMENT PROFESSIONALS

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ISSN 1442-2697 www.agcsa.com.au

Turfgrass

VOLUME 22.4 JULY-AUG 2020

MANAGEMENT JOURNAL

A new weapon
Managing methiozolin

The Lakes Golf Club, NSW
ASTMA Excellence in Golf Course Management Award

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The name says it all – TIFTUF™ is tough! This variety has a very fine leaf blade with dense growth, making it ideal for all levels of sports fields, golf courses and public spaces, from community ovals up to professional stadiums and golf courses. Its strong lateral growth and ability to self-repair makes it the perfect choice for high wear areas.

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TIFTUF™ was recently a part of the Sports Turf Research Institute's (STRI) 2-year trial analysing



*Excluding Western Australia and Northern Territory

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- Can take root in less than 7 days in the right conditions.
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MANAGEMENT JOURNAL

Published by the Australian Sports
Turf Managers Association (ASTMA)

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Printed By

Southern Colour Pty Ltd



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The Australian Sports Turf Managers Association encourages all members to support these companies who support your association

ASTMA CERTIFICATION PROGRAM

Formally recognising the professionalism of sports turf managers and encouraging their investment in continual education and professional development

Launched in May 2020, the Australian Sports Turf Managers Association Certification Program aims to formally recognise the skills of its professionals and the critical role they play in the sports and recreation industry. The ASTMA congratulates the first 100 sports turf managers who have achieved certification and can proudly use the **'Certified Sports Turf Manager' (CSTM)** designation after their names...

Dean Bailey Rosanna GC, Vic
Shane Baker Mosman Park GC, WA
Brett Balloch Anglesea GC, Vic
Tim Bayard Evergreen Turf, Vic
Paul Bevan GTS, Qld
Andrew Boyle GTS, Vic
Justin Bradbury Camden GC, NSW
Nathan Bradbury Eastlake GC, NSW
Harry Brennan Dubbo City Council, NSW
Mark Brooks Riversdale GC, Vic
Fraser Brown Lake Karrinyup CC, WA
Ben Bruzgulis Cronulla GC, NSW
Chris Burgess Yarrawonga Mulwala GC, Vic
Greg Burgess Northern GC, Vic
Jacob BurrIDGE Victoria GC, Vic
Jason Bushell Rowes Bay GC, Qld
Aaron Cachia Bayer, NSW
Patrick Casey Kalgoorlie GC, WA
David Cassidy The Cut, WA
Paul Chalmers St Aloysius College, NSW
Brenton Clarke Kooyonga GC, SA
Dan Cook Elanora CC, NSW
Lincoln Coombes RACV Royal Pines, Qld
Phillip Cooper GTS, NSW
Cameron Dunn Woollooware GC, NSW
Peter Dunn Federal GC, ACT
Ben Evans Ryde TAFE, NSW
Tim Fankhauser ASTMA, Vic
Peter Fitzgerald Toronto CC, NSW
Aaron Fluke NSWGC, NSW
Jason Foulis StrathAyr Group, Vic
Patrick Fraser Landscape Solutions, NSW
Peter Fraser Hervey Bay G&CC, Qld
Adam Fry Kooyonga GC, SA

Ryan Fury Killara GC, NSW
Jake Gibbs Royal Canberra GC, ACT
Danny Hack Wellington Shire, Vic
Cameron Hall Kew GC, Vic
Gareth Hammond Terrey Hills GC, NSW
Mitch Hayes Brisbane GC, Qld
Luke Helm Meadowbrook GC, Qld
Tim Hoskinson Cairns GC, Qld
Ian Howell, Bonnie Doon GC, NSW
Jay Infanti Eastern GC, Vic
Steven Johnson Al Mouj Golf, Oman
Nick Kinley Hartfield CC, WA
Dylan Knight Axedale GC, Vic
Lance Knox Busselton GC, WA
Steve Lalor Natadola Bay GC, Fiji
Kane Latham Elanora CC, NSW
Nick Launer Metropolitan GC, Vic
Ben Lavender Newington College, NSW
Jason Lavender Riverlakes GC, Qld
Dean Lenertz St Michael's GC, NSW
Dean Lewis Thurgoona CC, NSW
Josh Leyland Box Hill GC, Vic
Nathan Lindsay Hamilton Island GC, Qld
Peter Lonergan Coolangatta-Tweed Heads GC, NSW
Toby Lumsden ICC Academy, UAE
Bruce Macphee ASTMA, Vic
Dave Mason Metropolitan GC, Vic
Garry McClymont Twin Waters GC, Qld
Tony McFadyean Nedlands GC, WA
Michael McMahon GTS, Qld
Peter McNamara Brisbane GC, Qld
Keith McPhee Maitland City Council, NSW
Brett Merrell Ras Al Hamra GC, Oman

Ben Mills Hawks Nest GC, NSW
Colin Morrison Flinders GC, Vic
Damien Murrell Easts Leisure & GC, NSW
John Nelson Grafton District GC, NSW
Kelvin Nicholson Palmer Cooloom Resort, Qld
Matthew Oliver QSAC, Qld
Shaun Page Southern GC, Vic
Luke Partridge Manly GC, NSW
Ben Payne Peninsula-Kingswood CGC, Vic
Michael Pearce RACV Torquay GC, Vic
Keegan Powell The Sands Torquay, Vic
Shaun Pritchard PEGS, Vic
Justin Rankin Kooindah Waters GC, NSW
Marc Raymond Patterson River GC, Vic
Scott Reid Launceston GC, Tas
Wesley Saunders Dunblane New GC, UK
Robert Savedra Wesley College, Vic
Travis Scott Riversdale GC, Vic
Bill Shuck Evergreen Turf, Vic
Cameron Smith Bonnie Doon GC, NSW
Thomas Smith Waterford Valley GC, Vic
Mathew Soles The Australian GC, NSW
Clinton Southorn Abu Dhabi GC, UAE
John Spraggs Royal Wellington GC, NZ
Daniel Stack Windaroo Lakes GC, Qld
Lee Sutherland St Michael's GC, NSW
Aaron Taylor The Lakes GC, NSW
Shaun Taylor Southern GC, Vic
David Thomson Bermagui CC, NSW
Ben Tilley Headland GC, Qld
Steve Tuckett ASTMA, Vic
George Widdowson Geelong GC, Vic
Darren Wilson Wembley GC, WA

"Earning and retaining the CSTM designation proves to my employer and the rest of the industry a high level of commitment to our profession. After going through the process, I am honoured to share this designation with my fellow colleagues and would encourage all ASTMA members to take part in the programme."

– Luke Partridge, CSTM (Manly Golf Club, NSW)

Want to add your name to this list of elite sports turf managers? For more information on the ASTMA Certification Program visit www.agcsa.com.au



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COVER STORY THE LAKES - EXCELLENCE IN GOLF COURSE MANAGEMENT 8

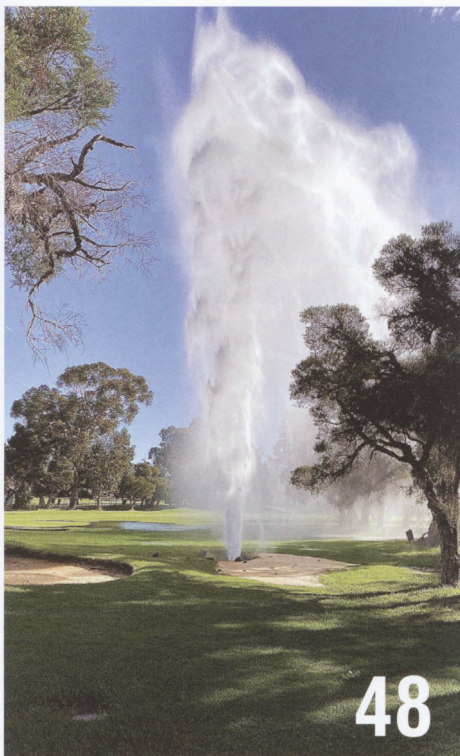
The Lakes Golf Club in Sydney is no ordinary club. It has an esteemed status as one of Australia’s premier championship layouts and with that comes very high expectations of playability and presentation. Since arriving at the club in 2012, course superintendent Anthony Mills has undertaken a raft of improvement works and tweaked management practices to deliver a course that the members now regard as being in its best condition in more than 50 years. It was no surprise therefore in July when Mills and The Lakes were deservedly bestowed the ASTMA Excellence in Golf Course Management Award, presented in conjunction with Bayer.

Cover: The Lakes Golf Club, NSW
Photo: The Lakes Golf Club.



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Surviving... just!

Five months and eight days... not that I'm counting. Working from home does have its benefits, but when your lounge has been your office for nearly half a year, it starts to wear a little thin. The back and neck are a chiropractic nightmare from sitting in front of a laptop around the clock, the pantry doors need new hinges on account of regular raids and I'm pretty sure I have developed an unhealthy dependency on Aldi mint slices. I can count on one hand the number of times I've filled up the car with petrol since 25 March, but any savings I've managed to make are being offset by some eye-watering gas and electricity bills! The accountant is going to love my 'COVID work from home log' come tax return time...

As if working from home for this length of time wasn't challenging enough – try proofing a magazine on your phone – just as we started production of this edition metropolitan Melbourne was thrust into a six-week Stage 4 lockdown due to escalating COVID-19 case numbers. Without question this has been the most stressful and mentally challenging time for all here in the world's most liveable city (ha!), but hopefully (please!) this short-term pain will lead to some long-term gain and we can return to some form of normality soon.

Staying connected with family, friends and colleagues during such a time has been so vital. Thank you to all those ATM readers and ASTMA members who have called or dropped an email to say 'G'day, how you doing?' – it has been very much appreciated. As the recent ASTMA webinars have pinpointed, mental health issues in these times are exploding and never has it been more important to check in on your mates or loved ones to make sure they are coping. And likewise, it is equally important to know the signs of when you may not be coping and not to ignore them.

Having spoken to a number of superintendents and sports turf managers here in Melbourne over the past few weeks, most are soldiering on and working as best they can under the conditions imposed. Many have taken different approaches – some are continuing to operate as normal while others have reduced hours and staff – but most will attest that their facilities have enjoyed the winter respite. I don't think I have ever seen my local junior footy ground ever look as resplendent at this time of year – normally there isn't a blade of grass left and it's a bog – so there are at least a few positives to come out of what has otherwise been a year we would all rather forget.

In this edition we take a break from all the COVID-19 doom and gloom and profile the winners of the recent ASTMA Awards. ATM sincerely congratulates Anthony Mills (The Lakes GC, Excellence in Golf Course Management Award), Cameron Hall (Kew GC, Claude Crockford Environment and Sustainability Award) and Graduate of the Year recipients Angus Beasley (ASTMA) and Matt Wolfe (STA Australia) on their achievements. While it is a shame we could not acknowledge them in the traditional manner at the annual conference, it should take nothing away from their achievements. Just as we were signing off this edition, the ASTMA announced the addition of two new awards for 2021 – the Excellence in Sportsfields and Grounds Management Award and the Sports Turf Management Team of the Year Award. These are fantastic additions to the annual awards programme and I look forward to covering the inaugural winners in these pages when they are announced.

Elsewhere in this edition, John Neylan looks at the research conducted both here in Australia and overseas on the use of methiozolin which is now registered for turf in Australia. While it does provide a new mode of action in the ongoing war turf managers wage against *Poa annua*, Neylan impresses the importance of using it wisely so as not to develop resistance. We also look at some strategies around managing new putting greens, while Kiwi super/GM maestro Leo Barber writes on the importance of socially distancing ourselves from work every so often.

On that note, I'm off for my one hour of allotted exercise and socially distance myself from my lounge and laptop. Enjoy the read...



Brett Robinson, Editor



Association forges ahead despite climate of uncertainty

At the time of writing, we are now passing the six month mark of restrictions and a very changing world resulting from the onset of COVID-19. With Victoria some weeks into Stage 4 lockdown, the Australian Sports Turf Managers Association (ASTMA) has had to adapt and revise its approach in order to continue providing services and deliver on increased requests for support to members. No doubt for many it has been a difficult time and thankfully many States and Territories have maintained normal operations, albeit with adjustments and a heightened sense of vigilance.

As mentioned in my last update, we continue to work with State and Territory governments on the pre-emptive work should this situation change. I am confident that the work undertaken in securing exemptions and our discussions to date are favourable, with a good level of understanding from departments of the importance of sports turf managers and the requirements for continued maintenance.

These discussions also led to the request for development of standards around essential maintenance for sports fields and golf courses during COVID-19 restrictions, which have been referenced by a number of departments and supporting organisations in the planning and development of local approaches to restrictions if required. If State or Territory government requirements change in the future, we will continue to manage the information, discussions and our approach in conjunction with state associations to support members and the industry.

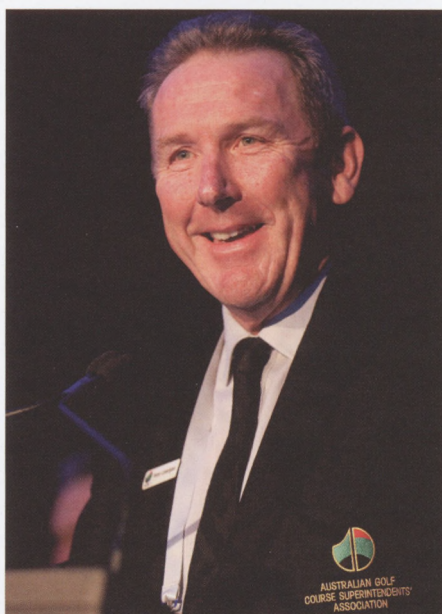
ASTMA AGM

Early August saw the 2020 ASTMA Annual General Meeting held virtually. It was a very different process from previous meetings, with members joining from all States in Australia as well as overseas. I'd like to pass on a note of thanks to **Brett Balloch** who stood down as president at the AGM after eight years on the Board (the past four as president) and congratulate **Peter Lonergan** who was elected for a second term as president.

The make-up of the Board this term is both new and expanded, with the experienced **Ben Tilley** (CSTM, Headland Golf Club, Qld) and **Damian Hough** (head curator Adelaide Oval) joining as directors to broaden the knowledge and understanding of the Board as the association looks to continue its drive to support members and expend its advocacy



Australian
Sports Turf Managers
Association



Life member Peter Lonergan was elected to his second term as ASTMA president at the recent AGM

and support work across the industry. The full Board comprises;

- **President:** Peter Lonergan (CSTM, Coolangatta & Tweed Heads GC, NSW)
- **Treasurer:** Chris Burgess (CSTM, Yarrowonga Mulwala GC, Vic)
- **Directors:** David Thomson (CSTM, Bermagui CC, NSW), Ben Tilley (CSTM, Headland GC, Qld) and Damian Hough (Adelaide Oval, SA)

The AGM also provided the release of the 2019/2020 ASTMA Annual Report which is available to members via the association website. The past year saw the ASTMA team deliver a significantly expanded range of benefits and opportunities to members, grow membership by over 10 per cent and record an overall operating profit; a great result in the challenging economic environment we have experienced this year. For members, there were also a range of updates and amendments proposed to the association's constitution for them to vote on, all of which were passed unanimously.

SUSTAINABILITY PROJECT

Recent months have seen the expanded opportunities for members continue with the release of the ASTMA Golf Course Sustainability Project, with 25 clubs throughout Australia taking part in the development of case studies, best practice and activities relating to sustainable and environmentally sound practices for course management.

The final 25 clubs represent a comprehensive mixture of facilities from regional and metropolitan areas, large and smaller maintenance teams, public and private facilities and will deliver a variety of feedback in the development of a tailored OnCourse Australia platform. The clubs are:

- **Victoria (6):** Anglesea GC (superintendent Brett Balloch, CSTM), Barwon Heads GC (Adam Lamb), Gisborne GC (Ricky Mether), Kew GC (Cameron Hall, CSTM), Koorringal GC (Tay Wilson) and Metropolitan GC (Dave Mason, CSTM).
- **New South Wales (5):** Bonnie Doon GC (Cameron Smith, CSTM), Lakeside GC Camden (Dean Hopper), Manly GC (Luke Partridge, CSTM), Moore Park Golf (Cameron Butt) and Royal Sydney GC (Adam Marchant).
- **Queensland (5):** Brisbane GC (Mitch Hayes, CSTM), Cairns GC (Tim Hoskinson, CSTM), Emerald GC (Jared Armitage), Headland GC (Ben Tilley, CSTM) and Rowes Bay GC (Jason Bushell, CSTM).
- **Western Australia (4):** Busselton GC (Lance Knox, CSTM), Lake Karrinyup CC (Fraser Brown, CSTM), Secret Harbour Golf Links (Liam Spooner) and The Cut GC (David Cassidy, CSTM)
- **South Australia (3):** Glenelg GC (Tim Warren), Royal Adelaide GC (Nathan Bennett) and The Grange GC (Rowan Daymond).
- **Tasmania (2):** Cape Wickham Golf Links (John Geary) and Launceston GC (Scott Reid, CSTM).

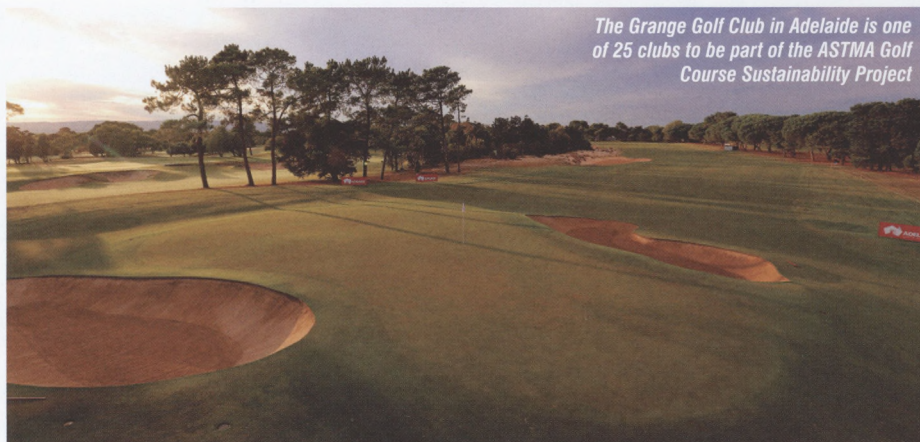
This project will feed into a larger piece of strategic work to be led by the ASTMA in conjunction with Golf Australia, that is the development of a Golf Course 2030 Program for Australia. This project will be a whole-of-golf programme, in conjunction with state associations and all golfing bodies, to understand the challenges, undertake research and develop the standards and initiatives for golf course management for the next 10 years.

On the topic of sustainability, I would like to acknowledge and congratulate the Claude

Crockford Environment and Sustainability Award winner this year, **Cameron Hall** (CSTM) and the Kew Golf Club. Taking out the award, sponsored by Syngenta, highlights the dedication and delivery around environmental stewardship and vegetation management that Cam and his team at Kew pride themselves on.

Our congratulations must also go to **Anthony Mills** from The Lakes Golf Club in New South Wales for winning the ASTMA Excellence in Golf Course Management Award, sponsored by Bayer. In a year of very strong nominations, Anthony and his team took out the coveted award, again a reflection of Anthony's performance as a turf manager, a leader and as someone dedicated to striving for excellence on and off the course.

The people shaping the future of sports turf management looks very promising also, with **Angus Beasley** (formerly Gunnedah Golf Club, NSW) and **Matt Wolfe** (formerly City of Albany, WA) each picking up the Toro-sponsored Graduate of the Year Awards for



The Grange Golf Club in Adelaide is one of 25 clubs to be part of the ASTMA Golf Course Sustainability Project

golf and sports fields and grounds respectively. Judging comments indicated yet another tough year across the group, with all state graduate winners displaying outstanding technical knowledge and presenting extremely well at the national finals. They will all no doubt play a major role in the development and direction of turf management and maintenance in this country.

As noted in my opening, the effort of the team at the ASTMA over the previous months has been focussed on one of support and has laid a very solid foundation for us to continue working through the challenges ahead. While it feels very much like the only certainty at the moment is uncertainty, it is an opportunity for us to focus on the tasks that make a significant difference to the industry and our members. ♣

TILLEY, HOUGH JOIN NEW-LOOK ASTMA BOARD OF DIRECTORS

Ben Tilley and Damian Hough are the new faces on the Board of the Australian Sports Turf Managers Association following its online AGM on 12 August. Hough, curator at Adelaide Oval, was co-opted the week prior to the AGM, taking the Board to five members in total, while Tilley was elected unopposed and replaced Brett Balloch who stepped down after eight years on the Board, the last four as president.

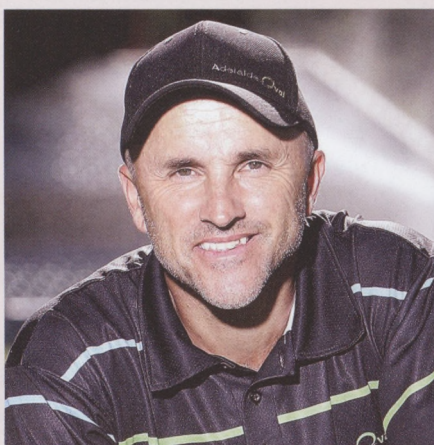
One of this country's most experienced and accomplished turf managers, Hough has been part of the Grounds Department at the Adelaide Oval since 1996, taking over as head curator in July 2010 and completing his Advanced Diploma in Sports Turf Management in 2011. Throughout this time, Hough has overseen the complete redevelopment of the oval's playing surfaces, including the successful introduction of drop-in wickets and transition of the playing surface to ryegrass.

"The turf industry is very close to my heart and I am really looking forward to being an active member of the ASTMA Board, assisting with meeting the strategic goals and plans," says Hough. "I am extremely grateful to be asked to sit on the Board and work closely with a passionate Board and diverse staff."

Tilley's appointment to the ASTMA Board marks another milestone in what has been a storied career in golf course management.

That career, which has spanned nearly four decades, was recognised recently when Tilley received the GCSAQ's Industry Recognition Award at the Queensland Golf Industry Awards.

Tilley has been superintendent at Headland since 2007 and prior to that was an assistant at Twin Waters Golf Club and superintendent at Beerwah Golf Club. Tilley is a multiple award winner, having collected the 2000 AGCSA Claude Crockford Environment Award during his tenure at Beerwah, as well as the AGCSA Excellence in Golf Course Management Award in 2012 for his work at Headland. Tilley also played a major role on the GCSAQ committee over an impressive 16-year period, holding most positions including two years as president.



"I'm absolutely rapt to be accepted onto the ASTMA Board," says Tilley. "When you look at the people who have gone before me – like the Pat Paulis and John Odells – it is quite a privilege and I will be doing my utmost to serve the members well."

"The association has been very good to me over the years, so it was time for me to roll the sleeves up and become involved. I know from my years with the Queensland association it is a very rewarding role and you get to work with some wonderful people."

"The ASTMA and the sports turf industry as a whole certainly have some challenges ahead given the current global pandemic and I'm looking forward to working with Peter and the Board to navigate the association through these testing times."



New ASTMA directors Damian Hough (Adelaide Oval, left) and Ben Tilley (Headland Golf Club, right)



An aerial photograph of The Lakes Golf Club. The image shows a large, winding lake in the upper half, reflecting the sky. Below the lake, there are lush green golf courses with various sand traps, bunkers, and a small dark building. In the background, a city skyline is visible under a cloudy sky. The overall scene is a mix of natural beauty and urban development.

Satisfaction

guaran-tee

Since arriving at The Lakes Golf Club in 2012, superintendent Anthony Mills has undertaken a raft of improvement works and tweaked management practices to deliver a course that long-term members now regard as being in its best condition in over 50 years. It was therefore fitting when Mills and The Lakes were recently bestowed the ASTMA Excellence in Golf Course Management Award, presented in conjunction with Bayer.



The golf course superintendent profession is very much a numbers game. What's your height of cut, frequency of clip? How many millimetres above or below average for the year are you? What rate and how many applications are you putting out? How many staff do you have and, in this current climate, how many bottles of hand sanitiser have you gone through this month?

For Anthony Mills, course superintendent at The Lakes Golf Club in Sydney, there is another number that he also likes to keep a close eye on. And, no, we are not talking about nematode counts and threshold levels, even if those are never too far from his thoughts.

Starting in 2014 and conducted every two years since, The Lakes Golf Club in Sydney undertakes a broad survey of its members. They are encouraged to rate every part of the club's operations, from membership services and clubhouse functions, through to the practice facilities and, of course, the playing surfaces and course environs. The Lakes boasts an active membership and last year pushed through around 48,000 rounds. It is also a very proud membership, one befitting a club which has played a major role in the history of the game in Australia, and one that ultimately demands high standards across all areas of the facility.

Two years after arriving at the club back in 2012, the first survey results came back with a course satisfaction rating of 83 per cent. Impressive. Fast-forward four years to the 2018 survey and the course received an extraordinary 91 per cent level of satisfaction across all categories of membership. And



The Lakes superintendent Anthony Mills (right) is congratulated by Bayer's James Royal upon winning the ASTMA Excellence in Golf Course Management Award

if things couldn't get any better, in the 2020 survey this March, that figure rose once again – to 94 per cent.

As the management and Board will attest, the golf course at The Lakes is the club's primary asset and understandably the critiquing of the course is benchmarked off of very high expectations. But to achieve a 94 per cent approval rating... quite staggering when you think about it. As all his colleagues will likely appreciate, the position of a course superintendent at a championship golf course is a results-based one and to achieve such a level of satisfaction indicates not only a huge commitment to excellence but someone who is very much at the top of their game.

It was little surprise therefore that in July, the Australian Sports Turf Managers Association (ASTMA) bestowed its longest running award upon Mills and The Lakes – the Excellence in Golf Course Management Award, presented in partnership with Bayer. The award followed Mill's receipt of the New South Wales Golf Course Superintendents Association's

Superintendent of the Year Award the previous October.

"I was blown away," says Mills of his reaction to winning the ASTMA award. "I was truly honoured to be one of finalists, but to win it is a pretty awesome achievement and a real reflection of the work of not just me but the entire crew here at The Lakes. Together with my fantastic assistants Aaron (Taylor) and Simon (Blagg), we have achieved a lot and it has taken a massive effort on everyone's behalf to get the course to where it is today.

"We've had a lot of highlights along the way – we've hosted two Australian Opens, upgraded the practice precinct facilities and undertaken a major programme to renovate our fescue bunker surrounds and reinstate sandy waste areas, as well as continually improving the playing surfaces. But the biggest thing has been the satisfaction of the membership. To see satisfaction ratings where they are at the last survey is extremely pleasing."

CONTINUAL IMPROVEMENT

The Lakes Golf Club in Sydney is no ordinary club. It has an esteemed status as one of Australia's premier championship layouts and with that comes very high expectations of course playability and presentation. The Lakes sprawls across 55 unique hectares of Sydney Water-owned land, with Mills overseeing a crew that comprises 18 full-timers as well as part-time staff. Together they maintain two hectares of A4 creeping bentgrass greens, 25 hectares of kikuyu fairways and surrounds and two hectares of Santa Ana couchgrass tees.



Seeding the new putting green with A4 creeping bentgrass. The new green was moved and increased in size to accommodate the expanded driving range facility

Since starting with the club, Mills has gone on to oversee around 50 course improvement projects as part of a detailed and ambitious strategic plan to provide members and guests with improved playing surfaces and facilities. The works have included;

- A \$750,000 upgrade to the practice precinct between 2017 and 2018;
- The reinstatement of all sandy wastes and bunkers to their original design (circa 2009);
- Countless tee upgrades including the complete reconstruction of the 4th tees, extension of the 7th tee and new tees on 8, 9, 10 and 11.
- Reconstruction of the 15th green (August 2013) and amendments to the 4th and 6th greens.

Two of the most significant projects have been the upgrade to the practice precinct and renovating The Lakes' vast areas of fescue bunker surrounds.

Starting in the autumn of 2017, the upgrade of the practice precinct saw the size of the driving range tee expanded to cater for increased use by members and to stop balls leaving the driving range and ending up on the adjacent 10th and 11th fairways. To do this, the existing chipping and putting greens had to be relocated – the putting green moving to the right of the clubhouse and the chipping green moving to the left to allow the driving range tee to come back closer to the clubhouse.

The driving range construction included lowering the new tee and parts of the fairway by 600mm to gain enough soil to construct four target greens and mounding on the outside of the driving range to keep balls on the range. As part of this, the 1st and 10th tee complexes were also rebuilt to help with separation and player safety.

The only soil that was brought in for project was the rootzone material for both the putting and chipping greens which were sown with A4 bentgrass. At 1300m², the new putting green is around 400m² larger than the original, while the new chipping green is 750m² and has one large bunker compared to the existing three small pot bunkers. Irrigation for the upgrade was carried out in-house except for the diversion of the mainline which needed to be moved and lowered.

In 2007, the team from Ogilvy Clayton were employed to conduct a major redesign of The Lakes. A key component of their design was opening up the site, especially on the front nine, with vast sandy waste areas and bunkers surrounded by thick fescue incorporated throughout the course. Over time, the fescue



PHOTO: NEARMAP

In response to increased usage and to improve safety of members on the adjacent 10th and 11th holes, The Lakes practice precinct underwent a \$750,000 redevelopment between 2017 and 2018

had become infested with a lot of kikuyu and other weeds, with weed control leaving the bunker surrounds very thin of fescue which allowed the ball to sit down in it or on bare sand which made it more difficult to play from than the bunker itself. Over time the bunkers had also lost their original size and shape due to sand being blown out and fescue creeping into them.

In the lead-up to the 2018 Australian Open, Mills and his crew tackled the bunker surrounds head-on in a bid to improve their aesthetics and playability. All fescue surrounds were sprayed with a non-selective herbicide to control all weeds and after four applications they were then shaved down to the soil surface using whipper snippers. With the fescue short, it provided the opportunity to trim back and reshape bunker edges, returning them to their original shapes using photos supplied from the architects during the 2009 construction prior to seeding.

A large concrete mixer was used to mix an 80:20 soil with organic fertiliser and pre-soaked fescue seed. The seed mixture consisted of a blend of four different types of fescue – slender creeping, Shoreline, hard and Chewing's fescue. All surrounds were then seeded at a rate of 6kg/100m² and a vigilant hand watering

roster was set up so as not to overwater the kikuyu surrounding the newly seeded fescue. These areas matured perfectly in time for the Open and proved to be one of the striking features of the course during the tournament's televising.

Indeed, on the final morning of the Open, then chairman of Golf Australia John Hopkins addressed the crew after their final round preparations. During that he pronounced to Mills and his team that it was the fifth Australian Open he had attended at The Lakes and that the course was in the best condition he had ever seen.

ACROSS THE BOARD

It isn't just course improvement works and hosting tournaments where Mills has shone. A 'whole of facility' approach means he, his team and the club are proactive in a number of different areas, from environmental management and community engagement through to staff development.

The Environment: Being located on land owned by Sydney Water and surrounded by one of the city's most important water bodies, The Lakes has very specific environmental management protocols in place for its maintenance operations. Through the club's



In the lead-up to the 2018 Australian Open, The Lakes crew undertook a major renovation of the course's fescue bunker surrounds including reinstating the bunkers back to their original 2009 shapes



a Lakes staff member on a rough cutter a few extra few minutes to do and in doing so saves the scout group extra maintenance.

Staff engagement: Having now spent over 25 years in the industry, Mills is very generous with his time and knows the importance of helping develop those coming through the ranks. He has assisted many of the Lakes staff to progress their careers, in particular his two assistants Aaron Taylor and Simon Blagg, both of whom have been through the ASTMA's Future Turf Managers' Initiative. Just recently, Taylor was successful in gaining his first superintendent role at Cronulla Golf Club.

Former Lakes 3IC Marlon Johnston also took the next step in his career when he was appointed as assistant superintendent at Terrey Hills Golf Club in late 2018. He has been replaced by Jackson Nichols who arrived at The Lakes as a young apprentice in July 2015. Since then he has flourished under the guidance of Mills and was promoted to the 3IC role in early 2019, one of the youngest turf managers in a leadership position in the history of the club.

Mills also ensures that his team is actively involved in the NSWGCSA and ASTMA and encourages many of his staff to undertake further education and professional development. Mills himself has also conducted presentations at local association days and industry seminars.

A REAL ASSET

It is an impressive body of work that Mills has amassed during his time at The Lakes and one which hasn't gone unnoticed throughout the club. In his nomination for the NSWGCSA award, which would be the precursor for Mills winning the ASTMA award, The Lakes general manager Andrew Kirkman could not have been more effusive in his praise of Mills and the difference he has made to the club.

Environmental Management Plan (EMP), it actively pursues the preservation of wetlands area with the aim of nurturing an environment that protects rare and distinct remnant vegetation and provides a sanctuary for wildlife.

The club actively manages and monitors water use and quality preservation, appropriate chemical usage, soil conservation, native bush regeneration, fauna and habitat. Stormwater entering the course is a major source of gross pollutants and even though the lakes are the responsibility of Sydney Water, the club assigns staff every week to ensure the lakes are presented in pristine condition.

Management of water use extends to keeping and comparing records of rainfall and water usage, maintaining and improving irrigation infrastructure and minimising water use through a variety of well-established control techniques. The use of fertilisers and pesticides is strictly controlled to avoid contamination of water bodies, with pesticide use part of an overall integrated pest management philosophy and approach. One example of this is hand-spraying around wetland areas to prevent potential risks of contamination that could arise from boom spraying.

The club is required to undertake appropriate regeneration and revegetation works as part of its lease conditions, with all native remnant vegetation being protected. Remnants of Eastern Suburbs Banksia Scrub, listed as a threatened species, have been identified and marked and while regeneration potential appears to be limited, efforts are being made to rehabilitate the areas, including the engagement of qualified bush regenerators to assist. A coherent palette of plants, with a strong emphasis on locally indigenous species, is being used to improve the landscape character and provide habitat for local fauna, particularly birds.

In addition to its dedicated EMP, The Lakes also works with the New South Wales Department of Primary Industries (DPI) for biosecurity purposes. The golf course is one of the largest open green spaces around both the Sydney Airport and the Ports at Botany Bay. The DPI carries out an annual tree health survey and sets traps on the course to monitor for foreign pests escaping from both aeroplanes and shipping containers.

Community engagement: In addition to opening the course up to hundreds of thousands of spectators for two Men's Australian Opens in 2012 and 2018, on a local level Mills and his team do that little bit extra as well. The local Eastlakes Men's Shed organisation has approached Mills for assistance in setting up their meetings to become more organised and efficient. Mills is due to speak at one their meetings and is looking forward to doing so once COVID-19 restrictions are eased.

Elsewhere, the Kingsford Smith Scout Group backs onto the 4th hole at The Lakes. A few years ago Mills approached them with an offer to cut their grassed area, which at the time was being cut with an old Victa rotary. The area, which is about 1500m², only takes



Mills, holding the Stonehaven Cup, has led his crew for two Men's Australian Open tournaments, the first in 2012 and then again in 2018 (pictured)

"In the past 20 years I have had the pleasure of working with over 75 different qualified greenkeepers, including six very talented course superintendents," says Kirkman. "Anthony is the most talented, dedicated, smartest, patient, results-producing and successful course superintendent I have ever had the privilege of knowing, let alone working with."

"Anthony has produced the highest standards of turf management over a very long period, particularly over the past three years, standards that many Lakes members have commented are superior to any standard they have seen in their 50 or 60 years of membership."

"Even more importantly, Anthony's character, integrity and genuinely kind nature makes him the ideal person to have received such an award. Anthony has progressed his career over the past 25 years on the back of an extraordinary work ethic, a commitment to



PHOTO: THE LAKES GC

Long-term members of The Lakes regard the current standard of course conditioning to be the best it has been in their 50 or 60 years of membership according to general manager Andrew Kirkman

ongoing improvement, dedication to achieving outstanding results and leadership by actions.

"Bestowing such an honour on Anthony further highlights the truly amazing service that golf course superintendents contribute to

golf clubs throughout Australia. Anthony has been with us at The Lakes now for eight years and we sincerely hope he continues as a vital part of The Lakes team for many, many more years."

CAREER SNAPSHOT: ANTHONY MILLS – SUPERINTENDENT, THE LAKES GC

- Started an apprenticeship at Sydney's Muirfield Golf Club in 1994. Completed his Diploma of Turf Management in 2003 with the highest pass mark of the class.
- Volunteered at Stadium Australia for the NRL final series and the Rugby Union World Cup in 2003.
- Spent six years as assistant superintendent at Oatlands Golf Club during which time the club successfully hosted three NSW Ladies Opens.
- In 2009 was appointed construction and grow-in superintendent of the Greg Norman-designed Stonecutters Ridge

Golf Club in western Sydney, a role he would hold until his eventual move to The Lakes in mid-2012.

- Initially joined The Lakes as assistant superintendent but was thrust into the main role just three weeks after starting and with it the prospect of hosting the 2012 Men's Australian Open in six months' time.
- Successfully hosted the 2012 and 2018 Australian Opens (the club has hosted seven in its history) and in 2015 co-hosted the Australian Amateur Championships with The Australian GC.

- Member of the NSWGCSA, ASTMA and GCSAA. Regular attendee at state days and national conference. Attended the Golf Industry Show in 2017 and in same year volunteered at the Genius Open held at Riviera Country Club while on a kikuyu study tour of the west coast of the USA.
- Has taken part in important trial work for companies to get products registered, most notably Indemnify turf nematocide (Bayer) and PoaCure (Campbell Chemicals).
- Father of three and a long-suffering North Sydney Bears rugby league supporter.

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AWARDS

Over the past three years, Kew Golf Club has undertaken significant works to improve the course's out of play areas, instituting a dedicated and thorough Vegetation Management Plan which is dramatically transforming these areas



Kew collects Crockford

*Kew Golf Club in Melbourne
is the 2020 recipient of the
coveted ASTMA Claude Crockford
Environment and Sustainability
Award, presented in conjunction
with Gold Partner Syngenta.*

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Environmental sustainability is one of the major issues facing the golf industry moving forward and its rise in prominence in recent years has seen many clubs taking proactive steps to improving this area of their operations. Led by superintendent Cameron Hall and vegetation manager Ben Burke, Kew Golf Club in Melbourne's inner eastern suburbs is doing just that, establishing the club as a leader in environmental sustainability and at the same time enhancing the value of the club's biggest and most precious asset – the golf course.

In recognition of its commitment to becoming an ecologically sustainable golf course, in July the Australian Sports Turf Managers Association (ASTMA) bestowed its coveted Claude Crockford Environment and Sustainability Award upon Hall and the club. Presented in conjunction with ASTMA Gold Partner Syngenta, the award acknowledges the major work that has been undertaken in recent years at Kew, work that is still ongoing.

Over the past three years Kew has undertaken significant works to improve the course's out of play areas, instituting a dedicated and thorough Vegetation



his crew for their effort in bringing the project to life and the support of club captain Andrea Moore, the Kew board of directors and club chief executive Mathew Loughnane.

"Receiving notification that we had won the award was without doubt one of the most satisfying moments in my working career," says Hall, who has been Kew superintendent since September 2015. "To be acknowledged with an award named after one of the doyens of turf management in this country is a great honour and something I am extremely proud of. Having been fortunate to work at Royal Melbourne, the reverence in which Claude Crockford was held was evident for everyone to see and having worked closely with one of Claude's staff in Graeme Grant over the last few years gives this award an even more special feel.

"For the club to win this award is a great vindication of the direction we took over three years ago to focus on our out of play areas and reintroduce local plant species that were on the site before a golf course was built. We have a wonderful piece of land so close to the Melbourne CBD with some amazing areas of vegetation, plus the Yarra River alongside one of our boundaries, which gave us a great base to start with.

"To see the initial areas we worked on over two-and-a-half years ago and how they look today is the most pleasing aspect of what we have accomplished as a club so far, considering the scepticism and doubts from different people when we started. It has been a real team effort and I have always instilled into the crew the philosophy that we are custodians of the land while we are employed here and if we can leave it in a better way than we found it then we have done our job. This project is ensuring that this statement will be true in future years."

CHANGING FACE

Kew Golf Club celebrated its 125th anniversary in 2019 making it the third oldest golf club in Melbourne. For nearly 100 years the club has been located on part of its present site that abuts the Yarra River through Melbourne's inner eastern suburbs. Early photos show that the golf course was sparsely populated with very few trees and large areas of native grasses were found off playing surfaces. River red gums were the main trees found on the property in the early days.

As was the case with many golf clubs in the 1960s and 1970s, member working bees took place with mass planting of exotic European tree specimens throughout the course. Over time a course that had been



The course and surrounding Yarra River environs are significant habitat sites for local fauna. Its billabongs are the only known breeding ground of Australasian darter in metropolitan Melbourne

wide open with vistas throughout became an enclosed amphitheatre of different holes with a vast mix of differing types of vegetation.

In the early 2010s, the club underwent significant change with the conversion of all fairways from a mix of cool-season grasses to Santa Ana couchgrass. During this process, consulting designer Graeme Grant proposed that for the couch to be a success, consideration needed to be given to conducting a tree audit as part of a Vegetation Management Plan (VMP). The audit would identify trees that were either hazardous, didn't fit in with the natural surrounds or impacted upon turf health. This document was finalised in 2014 and was utilised as a working document for vegetation on the golf course over the next few years.

Once the major works of restoring playing surfaces was completed, the attention of the club turned to improving its out of play areas. At this stage the club contracted Kate Torgersen (Environmental Golf Solutions) to construct a new VMP which was to form part of a Course Strategic Document that was completed by Grant with the assistance of Hall. Part of Torgersen's brief was to look at out of play areas and suggest ways that the club could better manage these areas utilising native grasses and ground covers, while at the same time not impacting play.

A review into hours spent on individual tasks was carried out at the same time and it was found that many hours were being spent on mowing roughs, particularly in areas that were a long way out of play. After several months of discussions and site meetings, a new VMP was released and submitted to the City of Boroondara with the primary focus of restoring areas of the course away from playing surfaces to how they were in the early days of the course. This was to be achieved by the following:

- Reduction in areas of rough to cut, out of play areas. Planting native grasses, shrubs and groundcovers that were native to the lower Yarra region.

Management Plan (VMP) which is helping to dramatically transform these areas. With the introduction of 'no-mow' and revegetation areas, the club has decreased the amount of cut rough by a third, which has resulted in significant labour and fuel savings and enabled these resources to be channelled into other areas of course maintenance and ongoing improvement works.

Hall says the works achieved to date at Kew would not have been possible without the support of many people, in particular Burke and environmental consultant Kate Torgersen. In accepting the award, he also acknowledged



Kew Golf Club vegetation manager Ben Burke (left) and superintendent Cam Hall (right) accept the Claude Crockford Environment and Sustainability Award from Syngenta's Daniel Docherty

- Removal of several carries and replant with dwarf indigenous grasses.
- Establishment of 'no-mow' areas of rough that were to be sprayed with selective herbicides with the aim of encouraging any seedlings in the soil.
- Collaborate with Melbourne Water on restoring riverbanks by utilising the Waterways Grant System more effectively and building relationships with The Friends of Burke Road Billabong who work alongside the club's boundary fence.

Being a course with river frontage, environmental stewardship is always extremely important regarding correct applications of chemicals. Even though it is not the law in Victoria at present, Kew has a policy that all products applied on the course must be turf registered. Even then several products cannot be applied to certain areas of the course due to its proximity to the river regarding exclusion zones on application. To ensure golfers are away from applications, most of the boom spraying is carried out overnight.

HELPING HANDS

With all this work and changes ahead of the club, one of the first steps was to appoint a specialised vegetation manager to work closely with Torgersen on delivering the early stages of the project. Since embarking on this project the club has had two vegetation managers – Brett Girdler who left after a year to take up a job with the DSE and most recently Ben Burke who joined after stints at Metropolitan and Yarra Yarra golf clubs as vegetation manager.

Over the last four years Hall and his staff have planted over 30,000 native grasses, shrubs and groundcovers throughout the course and removed 150 trees which were identified for removal by an arborist which were then replanted at a ratio of 5:1 with more

site-specific trees. A number of original views throughout the course have been restored, river banks have been replanted with the help of Melbourne Water's grant system and revegetation works have begun around the banks of billabongs on the course.

The course's location is also a significant area for fauna, with a number of billabongs home to the only known breeding ground of Australasian darter in metropolitan Melbourne. In 2006, a full flora and fauna report carried out by the City of Boroondara found the golf course to be one of the most significant sites for flora and fauna in the whole shire, with a number of rare plants found on the site along with a number of rare species of birdlife. To further encourage this birdlife, bird boxes have been erected throughout the course, while any trees that have had to be removed and that show any sign of being habitat to birdlife will be kept as 'habitat' trees.

At all stages throughout the works members are kept abreast of plans and progress through regular communication channels. As many will appreciate, a lot of members of golf clubs can struggle to adapt to change and this was one major issue the club faced. Communicating the goal of what it was trying to achieve was good for the environment and making the course more sustainable was the key message to get through to members.

The club was also cautious to not sound as if it was being critical of members who in the past carried out the mass plantings of exotic specimens. To do this, getting the local council on board was deemed a necessity to provide support with feedback from the membership. Burke was able to reach out and form a relationship with the Bushland and Revegetation Department at the council and site inspections were held so members could understand what was trying to be achieved.

Relationships were also formed with volunteer groups run by the council to come in and assist the club with the revegetation works in different parts of the course. Part of this relationship also sees the council giving the club plants to plant on the course. Council will also be installing sugar glider boxes in trees along the river in the coming months as their research has shown that this area has populations of sugar gliders present.

With the introduction of 'no-mow and revegetation areas, Kew has dropped the area of cut rough on course down by a third over the past three-and-a-half years. Whereas in the past one staff member would spend 3.5 days a week mowing rough, that is now down to under two days.

In addition, the installation of solar panels on the roof of the maintenance facility has also taken place in the last couple of years. This has produced a substantial saving to the club, with the panels providing power to go back into the grid. Future plans to become more environmentally responsible from a course operations side is the installation of hand blowers in the toilets and change rooms to eliminate the need for paper towels and also the issuing of all staff with a drink bottle, thus reducing the waste of plastic cups.

Most recently Kew was also announced as one of 25 golf clubs across Australia to be included in the Australian Sports Turf Managers Association's Sustainability Project. Kew is one of six clubs in Victoria to take part in the initiative in conjunction with Golf Australia, The R&A and the GEO Foundation. The one-year project will review and tailor GEO's leading OnCourse sustainability platform for the Australian environment.

The Crockford Award has become one of the industry's most coveted since its inauguration in 1996, with Kew adding its name to a long list of facilities championing environmental management and sustainability. For award sponsor Syngenta, Kew was a very deserving recipient and applauds the work that Hall and his team have achieved.

"Cameron and his team at Kew are very worthy recipients," says Dan Docherty, Syngenta's business development manager ANZ, Turf and Landscape. "They have highlighted what great natural assets golf courses are and how in the future these facilities can be set up for a greater purpose other than just golf."

Editor's Note: For more detail on Kew's VMP, see last edition's Environment column penned by Cameron Hall – 'Kew kicking new goals' (ATM Volume 22.3, May-June 2020, pages 60-62). 🌱

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Matt Wolfe becomes Western Australia's third recipient of the STA Sports Turf Graduate of the Year Award in its 10 year history. Wolfe is currently based at Perth Racing

Graduates on track

Regional apprentices Angus Beasley (NSW) and Matt Wolfe (WA) have topped the industry's cohort of sports turf management graduates.

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Matt Wolfe is congratulated by STA WA president Tony Guy



ASTMA Graduate of the Year Angus Beasley has already experienced a lot during his formative years in the industry, including volunteering at the 2020 Singapore Open at Sentosa

There's a lot to be said for a regional or country upbringing. Over the past 25 years that the ASTMA has bestowed its annual Graduate of the Year Award, presented in partnership with Toro Australia, over half of the award recipients have hailed from outside metropolitan areas. It is an impressive strike rate and so it was the case again in June when the ASTMA, together with STA Australia, announced their respective graduate winners.

Collecting the ASTMA Graduate of the Year Award was NSWGCSA representative Angus Beasley who undertook his apprenticeship at Gunnedah Golf Club in northeast NSW. Beasley topped a strong field of finalists that included Thomas Bath (Palm Meadows GC, Qld), Mitchell Clay (Mandurah CC, WA), Cody Tucker (Royal Adelaide GC, SA), Matt Stevens (Catalina CC, NSW), Bradley Whish-Wilson (Barnbougle, Tas) and Scott Allott (Metropolitan GC, Vic).

The STA Sports Turf Graduate of the Year went to former City of Albany apprentice Matt Wolfe who became Western Australia's third winner of the award in its 10-year history. Like Beasley, Wolfe headed a quality field of state STA finalists that included Luc Hill (Stadium Turf Management, ACT), Andrew Hodgson (Green Options, NSW), Jack McAteer

(Queensland Cricket Association, Qld) and Jayde Robson (Citywide, Vic).

Mentors and teachers are a key component in the formative years of any apprenticeship and for both this year's winners they were fortunate to have learnt the ropes from some of the best. In Beasley's case, he served his apprenticeship under charismatic superintendent Ian 'Chop' Elphick, initially joining the club as a part-time labourer in 2016 before being offered a full-time apprenticeship. He also completed his studies through Kurri Kurri TAFE, which can now lay claim to having produced two of the past three national award recipients.

Since completing his apprenticeship at Gunnedah, Beasley has gone on to work with Shape-On-It under the direction of long-serving Ellerton Golf superintendent Rod Hinwood. Shape-On-It operates the contract for the management and administration of Scone Golf Club in the upper Hunter Valley, which reopened in May 2019 after undergoing a major redevelopment. Beasley is employed as course superintendent of the nine-hole course and has responsibility for all day-to-day management practices on course. Together with Hinwood, Beasley also develops budgets, fertiliser programmes and pesticide plans.

For Wolfe, like a number of this year's finalists, the sports turf management industry

has been a second home almost. Wolfe grew up in the industry and would tag along with his father Brett who is a turf manager with the City of Albany in Western Australia. Albany is a good 4.5 hour drive south from Perth and after taking on an apprenticeship under his dad, Wolfe would go on to complete his studies through Perth's South Metropolitan TAFE.

During his time at the City of Albany, Wolfe helped prepare Centennial Oval for WAFL games as well as prepare the pitches and ovals for the Southern Smash cricket competition. More recently, Wolfe has headed to the state capital to take up a role on the track maintenance crew at Perth Racing which oversees the city's two major racecourses Ascot and Belmont. The Wolfe name is well known in WA racing circles, with Wolfe's uncle Stephen Wolfe one of the state's leading country thoroughbred trainers based out of Albany and the Ascot track.

Judging for this year's awards was conducted a little differently than in years past. Normally taking place on the eve of the annual conference, with this year's event cancelled due to the COVID-19 pandemic, judging occurred online via the Zoom platform. All judges noted the excellent quality of the candidates this year and congratulated them on their achievements to date and for adapting to the different mode of judging.



Beasley is now superintendent at the recently reconstructed nine-hole Scone Golf Club in the upper Hunter Valley

After receiving their awards, ATM touched base with both Beasley and Wolfe to get their reaction and thoughts on what their awards will mean for their future endeavours in the sports turf management profession...

ATM: What was your reaction when you were told you had won the award?

Angus Beasley (AB): I really couldn't believe that I had won. I have never gone out and worked hard for any reward, but I really appreciate the opportunity that the Board gave me to help represent the industry.

Matt Wolfe (MW): Shock initially. Going into the process I had low expectations and just thought I would give it a go. Never in my wildest dreams did I imagine winning.

ATM: What does the award mean to you?

AB: Winning this award, for me, represents a lot of hard work and dedication. The award is a huge national recognition of the work that I have done throughout my apprenticeship and into the future is a great indication of character and who I am for jobs and other opportunities.

MW: I am very passionate about the industry and winning the award means a lot. It gives me

confidence knowing what I've been doing in my apprenticeship is good enough to impress some well-renowned judges.

ATM: What will you do now that you have won the award – what are your future plans?

AB: I am really enjoying my current job at the moment and hope to continue working at Scone and developing my skills further. I hope to continue my studies further as well, completing my Diploma of Sports Turf Management and then undertaking a Certificate III in Business Management and Administration. Upon completion of these I would like to spend time on The Ohio Program in the US.

MW: I've recently started working at Perth Racing on the track which has been good to learn another skill set. I've said all along that I just want to continue to learn, so whatever I'm doing I'll just be trying to improve my knowledge of the industry.

ATM: What were some of the highlights during your apprenticeship?

AB: Two of the major highlights of my career so far have been volunteering at major

tournaments here in Australia and Singapore. I was part of the tournament crew at the 2018 Emirates Australian Open held at The Lakes Golf Club in Sydney, which was my first major experience of tournament preparation and working as part of a large team. I really enjoyed the work we did in getting the course ready, as well as the networking that occurred throughout the tournament. Also, being an apprentice and being taken to such a big tournament (my boss Chop was also volunteering) was an absolute privilege.

The Singapore Open was an absolute privilege to be a part of and was a different experience to the Australian Open. The huge numbers of staff and working with a completely different set of grass species was a huge learning curve. It was a great opportunity to be a part of such a huge international team and the networking and exchange of knowledge was amazing.

MW: I was lucky enough to host some great events throughout my apprenticeship including two WAFL games and the inaugural Southern Smash cricket carnival. Being a part of the Centennial Park redevelopment, in particular the creation of three turf wicket blocks, was something I really enjoyed too.

ATM: Talk about some of the mentors/bosses you have had and the role they have played in your development?

AB: I worked under the supervision of 'Chop' Elphick during my apprenticeship at Gunnedah. He taught me everything he could on turf management, irrigation installation and repair and how to look after all the machinery, but most of all he really instilled a good work ethic. In my first few days on the course he told me that 'grass doesn't grow between nine and five'. You are working with an always-changing product and have to plan ahead and try and do the best thing for the course. My TAFE teachers – Albert Sherry, Mark Crawford and Greg Smith – helped develop more of the technical knowledge that at times we just couldn't cover with the amount of work that we needed to do.

It has been such an excellent learning experience over the last few months in my new job at Scone. I had to learn quickly a very different management style with the new construction and soil profiles. Rod (Hinwood) has helped immensely and taught me a lot with this different style.

Congratulating Angus Beasley (seated) on his Graduate of the Year Award is (from left) Upper Hunter Shire's David Gatwood, Gunnedah superintendent Ian 'Chop' Elphick, Ellerton superintendent Rod Hinwood and Toro's Mark Johnson



MW: My main mentor has been my dad, Brett Wolfe. He's been involved in the turf industry for over 10 years and was the one who introduced me to it. Having dad as my boss helped me to set the highest possible standards in our workplace. Whether we were preparing an oval for Auskick or for a WAFL game, the processes were the same and we always took pride in the surfaces we prepared. Also, I was lucky enough to start my apprenticeship when Shane Braimbridge was finishing his. Shane, along with dad, always made it an enjoyable environment to be involved in while maintaining high standards. Shane was often there to help me fix the mistakes I made early on.

ATM: What was the biggest thing you learnt about the industry during your apprenticeship?

AB: During my apprenticeship I learnt that you have to be ready to work hard and try and make a difference on the course every day. This helps to always be improving the course and providing a quality surface for the members and guests. Ultimately we are in a service industry and we need to ensure that people always enjoy their experience when out on the golf course.

MW: A couple things have stuck with me. First, it's okay to make mistakes in the industry as long as you learn from them. Second, you've got to find what works for you and stick to it while trying to improve it. I learnt that you can ask the same question to five people and get five different answers, so you've just got to find out what works best for you. And last, it's the age old saying but just ask as many questions as you can and always try to make good connections with people.

ATM: What do you like most about being involved in the sports turf industry?

AB: For me, the best thing is being a part of such a good community of people who are always willing to help one another out. It doesn't matter where you are in the world, people will always go the extra mile to help you out and make you feel welcome.

MW: I find the turf industry so great to be a part of, especially because of the people. Everyone I meet throughout the industry is so great to deal with and always willing to give you the time of day. It's also a very satisfying job. When you're putting the finishing touches on an oval and seeing the end result and knowing what has gone in to get it to that point, it is extremely rewarding.

ATM: Finally, any people you'd like to thank...?

AB: I'd like to thank my parents and family. They have constantly supported me throughout my life and career and I am extremely thankful for everything that they have done. I would also like to thank Chop for taking me under his wing during my apprenticeship and giving me so much of his time to teach me as much as he could and trusting me with as much responsibility as he did. All of the teachers at TAFE who spent their time answering all of my questions and supported me through the awards process. Finally, I would like to thank Rod for his trust and support over the last few months in my new role.

MW: I wouldn't be in the industry if it weren't for my dad, so a lot of thanks goes to him. The City of Albany and ATC Workmart helped me throughout my apprenticeship, in particular Tom Moir and the turf crew at the City of Albany, Brett Wolfe, Coen Marwick, Ken Clifton and Shane Braimbridge. At TAFE, Jeff Austen was a fantastic lecturer and all the boys who went through with me I couldn't have asked for a better bunch of blokes. And also to the STA WA and Toro for giving me the opportunity to win such an award. 🏆

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 GROWING SOLUTIONS

The best start

After a new putting green is built, unique management practices are necessary to promote turf maturation and quality playing conditions. USGA agronomists Zach Nicoludis and Adam Moeller look at some of the most critical aspects to get right to ensure your new surfaces get the best possible start to life.

100 USGA GREEN SECTION

Putting green conditions have a tremendous influence on a golfer's perception of a course. Inconsistent, bumpy putting greens frustrate golfers when a well read, well struck putt bounces offline. Many maintenance practices can be implemented to improve smoothness and consistency, but sometimes the turf species, poor drainage or the growing environment are limiting factors in meeting golfer expectations. To address these issues and deliver high quality putting conditions more consistently, golf facilities often invest in renovating their putting greens.

Arguably the most critical stage in a putting green's life begins immediately after it is established. How new putting greens are maintained during their first year has long-term impacts on turf health and playability.



Maintenance practices must be tailored to promote the maturation of new turf so quality playing conditions can be consistently delivered for years to come. This article will guide you through the critical factors that impact the health and performance of newly seeded or sprigged putting greens.

FERTILISATION

New putting greens require a customised fertilisation programme. During grow-in, a combination of both slow- and quick-release fertilisers will deliver the best results. Slow-release fertilisers provide a steady source of nitrogen and can be applied in larger amounts than quick-release fertilisers with minimal risk of burning the turf or leaching. On the other hand, readily available nitrogen sources provide the quick burst of nitrogen necessary to encourage rapid growth and coverage.

The key is to fertilise immature putting greens often but in small amounts. It is not uncommon for a new putting green to require 0.7-0.97kg of nitrogen, 0.48-0.97kg of phosphorus and 0.48-0.97kg of potassium per 100m² every month until complete coverage is achieved – usually within 6-12 weeks. The exact amounts of fertilisers must be adjusted to every situation.

There is no universal grow-in regime that fits all putting greens because there are simply too many variables. For example, a sprigged bermudagrass putting green must be managed differently than a seeded bentgrass putting green. Grow-in regimes may even need to be adjusted for different putting greens at the same course to account for different microclimates. Consultant agronomists are excellent resources for help planning a unique grow-in programme for your project.



Mowing should begin on new putting greens when the turf is well-rooted and the surface is firm enough to support equipment

MOWING

Mowing can begin when putting green turf is well-rooted and the rootzone is firm enough to tolerate equipment traffic. In most cases, mowing begins even if turf coverage is less than 100 per cent. The initial mowing height on new bentgrass putting greens should be between 4.5mm and 6.5mm. New ultradwarf bermudagrass putting greens should have an initial mowing height between 3.8mm and 5mm.

The appropriate mowing height for the first mowing largely depends on the smoothness of the surface. Prior to the first mowing, it is a good idea to roll the new putting greens to smooth minor inconsistencies that may have developed during the initial weeks of grow-in. Rolling to continually smooth any new putting surfaces can also be beneficial as the mowing height is lowered.

Field experience has shown that it is best to remain at the initial mowing height until putting greens have near complete turf coverage. At this point, the process of gradually lowering the mowing height can begin. Lowering the mowing height in 0.25mm to 0.5mm increments should help increase turf density without injuring the turf. Visually inspect the putting surfaces after each mowing when lowering the mowing height. Since it is almost impossible to keep the putting surface perfectly smooth during establishment, minor scalping is inevitable.

If moderate scalping occurs, delay lowering the mowing height further until the reason for scalping is determined. Some likely causes include mower setup issues, surface unevenness and soft conditions. After the issue has been corrected and the turf has recovered, continue lowering at a reasonable pace.

WATER MANAGEMENT

Water management is critical to maintain high-quality putting greens regardless of age. During the initial phase of grow-in, shallow-rooted seedlings will require light-and-frequent irrigation. As the turf matures, irrigation frequency should transition to deep and infrequent. Portable moisture meters help to establish thresholds for when irrigation is necessary.

Once a threshold has been established, use a moisture meter to check the moisture content of new putting greens every morning. Areas with moisture below the established threshold should then be hand watered. If labour is not available to hand water, carefully use the irrigation system. Keep in mind that each putting green will likely require different amounts of water, requiring site-specific adjustments. Applying the same amount of



Frequent topdressing and evaluations of the soil profile will help guide organic management practices

water to every putting green is a recipe for disease, mechanical damage and poor playing conditions.

Frequently monitor new putting greens throughout the day to scout for moisture stress. Juvenile turf growing on a new sand-based rootzone can be highly susceptible to wilt. Syringe areas showing signs of wilt to relieve turf stress until soil moisture deficits can be corrected with hand watering or overhead sprinklers. A moisture meter can also be used in the afternoon to identify whether new putting greens need to be proactively watered to prevent wilt.

TOPDRESSING AND OM CONTENT

Light, frequent topdressing applications should begin as the mowing height is being lowered. This practice smooths the putting surface and dilutes organic matter. However, be mindful that overzealous topdressing can hinder the development of a thin, desirable mat layer (Dowling and Vavrek, 2018). A mat layer diluted with topdressing provides stability to the putting surface and gives it the resiliency required to tolerate maintenance and golfer traffic.

Topdressing at a rate and frequency that matches the turf growth rate will adequately dilute organic matter. A similar topdressing programme should remain as the foundation for managing organic matter throughout the lifetime of the putting greens.

Regularly examine the rootzone profile to guide maintenance programmes that prevent excessive organic matter accumulation. Excessive organic matter retains water near the putting surface, creating soft conditions and a variety of turf health issues. Also, use a soil profiler or hole changer to periodically observe the structure and stability of the mat layer. For a quantitative measurement of organic matter,

send undisturbed samples of the soil profile for annual organic matter analyses. Use the test results to establish an organic matter threshold and guide topdressing and aeration.

OPENING FOR PLAY

Committing to a firm opening date well in advance of project completion is not recommended. Delays during construction and establishment are common. Further, the rate of turf maturation is highly weather dependent. As new putting greens mature, regular meetings between the superintendent and other facility decision-makers will ensure consensus on when to open them for play.

New putting greens could be weeks away from being ready for play despite having complete turf coverage. Cultural practices during grow-in focus on producing a deep root system, complete turf coverage and a thin mat layer. Opening the putting greens to play will likely result in rapid turf thinning if any of these goals have not been achieved. Prematurely



It is best to remain at the initial mowing height until putting greens have near complete turf coverage

opened putting greens may even need to be closed to promote further maturation.

Determining when a new putting green is ready to be opened is more of an art than a science. Frequently inspect the soil profile and test the stability of the surface before opening a new putting green for play. The turf and rootzone mix should feel stable and firm when you press down on the surface with your fingers. A 0.25-inch-thick (6mm) mat layer typically provides the stability and resiliency a putting green needs to handle maintenance and golfer traffic. Once a putting green reaches this level of maturity it is likely ready to be opened for play.

MANAGEMENT TIPS YEAR ONE

Play volume: Golfers are understandably eager to enjoy new greens. Unfortunately, concentrated foot traffic combined with maintenance equipment traffic can quickly lead to turf thinning. Therefore, it is a good idea to limit the number of rounds when new putting greens are first opened for play. This provides an opportunity to evaluate turf resiliency before a full day of rounds is permitted.

Control daily play volume while the new putting greens mature by establishing a maximum number of rounds or by lengthening tee time intervals to 10 or even 15 minutes. Also, restrict rounds when weather forecasts predict extreme heat, high humidity or heavy rainfall since new turf is especially vulnerable to decline during these conditions.

Hole locations and traffic: Disperse hole locations over all available cupping areas to reduce concentrated foot traffic. Use a digital level (if one is available) to determine all possible areas for hole locations – a process that can be especially challenging on putting greens with new contours. Document each day's hole location to avoid overusing an area. Additionally, train employees to recognise signs of turf thinning and teach them to avoid setting hole locations in stressed areas. Traffic control around new putting greens must be especially diligent. Use ropes, signs and barriers to direct players to as many different entrance and exit points as possible.

Collars: Maintaining healthy collars on new putting greens is often a challenge. Some facilities maintain new creeping bentgrass putting greens without a collar until after the first year of growth because juvenile turf maintained at collar height actually has lower traffic tolerance than turf maintained at putting green height. Many courses maintain an intermediate rough around new putting greens if a collar is not immediately established.

If a collar is immediately established on new creeping bentgrass putting greens, a mowing height near 6.5mm to 7.5mm often results in better traffic tolerance than a higher height. Additionally, mowing with walk mowers may require placing turning boards on the collars to protect them from mechanical damage.

New ultradwarf bermudagrass putting greens have collars that are planted with a different bermudagrass variety or another warm-season grass. Increased fertiliser rates to establish new putting greens can over-stimulate collar growth, causing encroachment into the putting green. Encroachment from the collar can be controlled by using a simple edging tool.

Aeration: Putting green performance and organic matter development should determine aeration practices during the first year. There are a few indicators that can help determine the need to remove organic matter. For instance, aeration is probably not needed if golfer and maintenance traffic cause excessive wear and turf thinning during the first year. Exploding ball marks that are impossible to repair and collapsing hole edges are signs that a putting green lacks structure and does not yet need core aeration. If core aeration is not necessary, use solid-tine aeration to break surface tension in the mat layer and increase gas exchange into the rootzone.

Managing expectations: Superintendents and other facility decision-makers must establish reasonable expectations for the playability of new putting greens and communicate that information to golfers. It often takes 12 to 18 or more months before a new putting green



Hand watering is labour-intensive, but it is the most effective way to apply water where it is needed

matures to the point where it can withstand intensive maintenance. As a result, new putting greens often must be maintained at a slower green speed than golfers have come to expect of mature putting greens.

Having patience will help ensure that new putting greens are not subjected to unnecessary risks early in their development. Even short-term demands for fast green speeds could seriously jeopardise turf health on young putting greens. The result could be long-term issues and possibly prolonged recovery time, not to mention additional cost.



Prior to the first mowing, roll the new putting greens to smooth minor inconsistencies

CONCLUSION

Every putting green establishment project presents a unique set of challenges. A lot can be learned from other facilities that have undertaken similar projects, but it is important to remember that each situation is different. Just because one course started mowing their new putting greens at a certain height or opened them for play on a certain date does not mean that the same programme will work at a different facility.

Assess the unique circumstances of putting green establishment at your facility and determine the best strategies for managing new turf. Successful grow-in and maturation during the first year sets the stage for healthy, high-quality putting greens for years to come.

ACKNOWLEDGEMENTS

ATM wishes to thank the USGA for allowing publication of this article. The original article, titled 'Managing new putting greens', appeared in the 6 April 2018 edition of the Green Section Record – Vol. 56 (7).



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New greens management: An Australian perspective

A greens replacement programme is often one of the largest investments a golf club can make. Very few clubs can afford the luxury of replacing all greens within a short period, leading many clubs to undertake this process over a prolonged period of time. As a result, there are many clubs throughout Australia part way through this process with a range of green construction types and surfaces requiring slightly different maintenance practices and all playing differently.

Success or failure of the first few greens can often shape members' perceptions and enthusiasm to stay the course and follow the programme through to completion. Often the first greens constructed under these programmes require major renovation or surface replacement well before the programme is halfway through due to the very different management requirements that a new sand-based profile with a modern bentgrass has in comparison to older existing greens.

Maintenance programmes should be developed and in place before a new green is sown or sprigged, to ensure the surface is provided with all the necessary inputs required for successful establishment. As stated in the previous article, the maintenance of the surface, particularly in the first 6-12 months, can dramatically influence the performance and the usable life of the green. Allowing excessive thatch or layers to build up within the profile can occur very quickly. The following points have been picked up over many years of establishing a wide range of turf surfaces.

FERTILISER

A pre-plant fertiliser programme should supply all required nutrients in adequate amounts so as not to limit the potential of turf establishment and promote rapid growth and development. It is during this period that organic matter can build up quickly, forming a layer within the surface. Regular sand dusting is required in conjunction with surface establishment.

The following recipe provides the basis for all nutritional requirements in slow release and up front form, for a new putting surface, established either from seed or sprigs. These products should be incorporated into the top 20mm-40mm prior to planting.

- Processed poultry manure (3.7-2-1.8) @ 2kg/100m²;
- Slow-release nitrogen (such as urea form) 40-0-0 @2kg/100m²;
- Turf starter fertiliser (8-10-10 or similar) @2.5kg/100m²;

Senior AGCSATech agronomist

Bruce Macphee provides some additional points on new greens management.

- Trace element mix (as per the label);
- Dolomite or ag lime (if required). Note: It is essential that soils used in construction are thoroughly tested for both physical and chemical characteristics prior to use.

During the establishment period, irrigation is often applied, regularly increasing the potential for nutrients to be leached through the profile. Regular light applications of an upfront fertiliser should be applied to encourage rapid plant development, along with follow-up applications of slow-release sources. How often you apply fertiliser and the rates will vary somewhat depending on temperatures and growth rates, but as a rough guide you should be applying 100-150g of N a fortnight per 100m² throughout the grow-in period.

MOWING AND TOPDRESSING

These two processes should be undertaken together as the frequency of mowing and height of cut will be determined by the growth rate and smoothness of the surface. Regular light topdressing will assist in providing a smooth putting surface.

The first cut is always a nervous one, but the key to keep in mind is you should not

be causing excessive damage or scalping. The first cut usually takes place when the turf is at the 3-5 leaf stage with the height of cut ideally around 10mm. Rolling the green surface using the rear roller of a walk behind mower is a good start to lightly compacting the surface. Heavy rollers should be avoided at this time. Mowing and rolling should always be undertaken when the surface is dry to avoid picking up sand on equipment and boards should be used to turn equipment on.

After several cuts at the initial height, the height of cut may be lowered 1-2mm, always being careful to avoid scalping. After lowering the height, the surface should be lightly topdressed and rubbed in by hand, avoiding causing any excessive damage. The use of machinery should be avoided in these early stages to prevent wheel marking or damage.

The height of cut should then be raised to avoid picking up excessive sand the following week. This can be a 'two steps forward, one step back approach' in regards to lowering the height of cut, but it does work. Lowering the height of cut, progressively and slowly with regular light topdressing after each cut produces a smooth surface and prevents the development of an organic layer in the surface.

Ideally the height of cut should not go below 6mm until full cover is achieved and maintaining a height of around 4mm for the first 12 months will assist with plant development. It takes time for a green to mature and cope with the intensive maintenance required to produce firm fast greens, however, acceptable speeds can still be produced at this height on new greens with regular light dusting.

Many clubs undertaking greens replacement programmes will establish large turf nurseries which can be used to resurface greens. The down side of this is that often with greens nursery turf you are introducing an organic layer into the surface of a new green, which can affect long-term performance. A few points to consider when managing a greens nursery...

- Sand used for the nursery, dusting and construction should ideally be the same material or have compatible physical characteristics.
- Regular dusting of nurseries is required to ensure organic layers do not develop within the new turf prior to installation.
- Regular dusting leading up to harvest and cutting turf as thin as practical assists in new root initiation and establishment. ♣



The key is to fertilise immature putting greens often but in small amounts



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JACOBSEN

Three chief executive officers, an inaugural offshore conference and a global pandemic... it would be fair to say that my four-year term as president of the Australian Sports Turf Managers Association has had some interesting times. Starting out in the turfgrass industry many, many years ago thinking how good is this working in the golfing industry, I would never have entertained the idea that one day I would be penning an article on my time as president of anything, let alone a national association. My, how things change.

After serving seven years on the committee of the Victorian Golf Course Superintendents Association (VGCSA) in the late 1990s and early 2000s, I figured that I had done my time in those roles. Fast forward to April 2012 and I received a phone call from then Australian Golf Course Superintendents' Association (AGCSA) chief executive Peter Frewin enquiring whether I was interested in becoming a Board member. After some pondering, I thought that I had something more to offer the industry, so I happily accepted.

And so the journey began. The 2012 Australian Turfgrass Conference was held in Melbourne and, as luck would have it, it was the turn of the AGCSA to host the International Summit of Golf Course Superintendents and Greenkeeping Associations, an event held every four years. As the incumbent-to-be Board member, an invitation was extended for me to attend and I was able to get to the second day. There I was, the golf course superintendent of little old Anglesea Golf Club sitting around a table with the who's who of the world's industry associations – the GCSAA, BIGGA, FEGGA and CGSA (Canada), as well as the AGCSA Board and chief executive. Overawed? No. Out of my depth? No, but there was certainly plenty to get my head around.

Peter Lonergan (Coolangatta-Tweed Heads Golf Club) had just stepped in to the AGCSA president's role and there was a bit of a running joke that it was somewhat of a poisoned chalice as the previous four presidents had all left their clubs. Fast forward to 2016, Peter was about to start a major redevelopment project at his club and this required his full attention. Although happy to still be a Board member, he felt that he would not be able to devote the required time to the president's role. Being the next in line in terms of experience, I was more than happy to assume the presidential gavel, but little did I know what lay ahead!

CEO CHALLENGES

My first Board meeting as president was in August 2016. The meeting was going well and then we moved to the chief executive's report where the first little surprise of my presidency



The joint conference between the AGCSA and NZGCSA in 2018 was a highlight of Balloch's tenure

was announced – Peter Frewin was resigning. One month in and one chief executive... hmm. It would be fair to say that the Board was taken a little out of its comfort zone in the search for a new CEO and in October of 2016 Craig Wood was appointed.

Onwards to March 2017 and following the departure of Craig, I was now beginning to think that a black cloud was hovering over my head anytime the AGCSA was mentioned. With the upcoming Twin Waters conference looming, the decision was made to delay the recruitment of the next chief executive until after the conference, so all efforts could be turned to ensuring a successful conference. This of course meant a conference without a CEO, just another twist in the presidential term. The conference was another successful one with the staff and Board spreading the extra responsibilities among themselves.

There was one constant through these 12 months though and that was the staff of the AGCSA. In times that felt like upheaval was the norm, a constant was the ability of the AGCSA staff of Simone Staples, Phil Horsburgh, Allison Jenkins, Bruce McPhee, Brett Robinson and Jo Corne to focus on the job at hand. Their professionalism and efforts were then and to this day still are outstanding and much appreciated by the Board.

It certainly felt at times in between finding a replacement for Craig that I was at times working two jobs. I felt like a part-time CEO and it was in those six months that I learnt most about the 'behind the scenes' operations and running of the association, with two things in particular standing out.

Having been in the industry for a number of years I knew there was fragmentation, but the extent of that fragmentation was surprising. There was little chance of the industry growing as needed as it was; thankfully that has changed. Secondly, the self-interests (somewhat understandable) of sections of the industry were a little alarming. Things are improving, although slowly.

A six-week overseas trip to escape that 'black cloud' after the 2017 Twin Waters conference came at a great time. Traditionally association activities are at their quietest immediately after a conference so it was a good time to get away and refresh as there were more challenges ahead – the appointment of a third chief executive was waiting upon my return.

The Board made the wise decision to this time engage a recruitment company to aid in the appointment. Mark Unwin was duly appointed and commenced in the role in September of 2017. Almost three years on and Mark is excelling in the position.

HIGHLIGHTS

Despite some of the challenging times, over the past four years the association has achieved plenty, with the very first offshore turf conference right up there as one of them. Having been a few years in the making, the joint venture between the AGCSA and the New Zealand Golf Course Superintendents Association (NZGCSA) held in Wellington in June 2018 was a fine success.

The past two years have seen a massive increase in our advocacy and governance work. I can quite confidently write that without the hard work of Mark Unwin there may have been a few different scenarios pan out, especially in the past few months. As an association and indeed industry we never had much of a voice with government departments, but then again how could we expect to when it was fragmented.

The key initiative announced by the AGCSA last September that it would be rebranding to the Australian Sports Turf Managers Association (ASTMA) was the step needed to enable our industry voice to be better heard within government departments. It also meant that the association was more representative of our membership base, while also positioning to be the peak body for turf management in Australia.

This, coupled with a simpler membership structure announced the previous month, saw an immediate impact with a significant membership rise. All of this was coupled with the completion in May that year of the first affiliation agreement between the AGCSA and all state golf associations; at last, steps toward a unified industry.

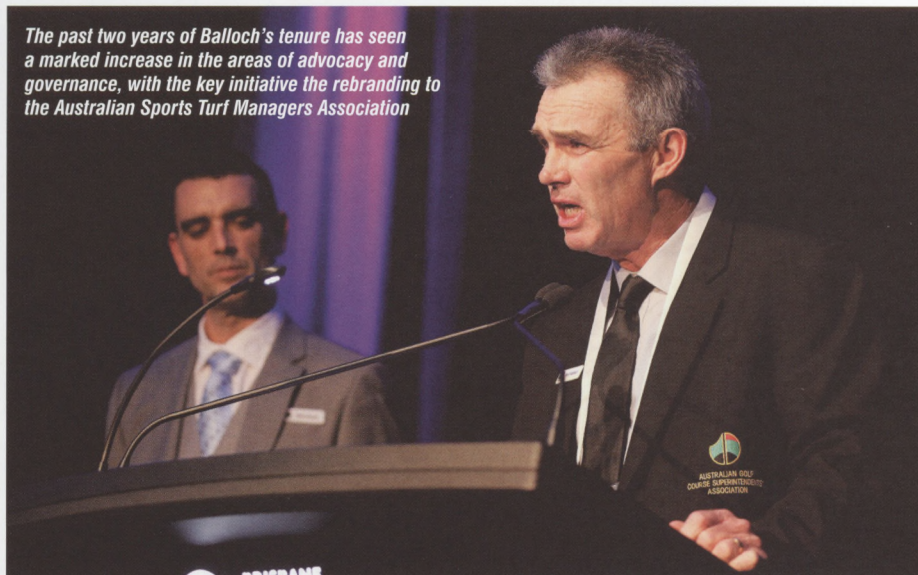
A man in a dark jacket and cap is captured mid-swing on a golf course. He is wearing a dark jacket with white accents, dark trousers, and white shoes. The background is a lush green field.

A challenging round

At the recent ASTMA Annual General Meeting, Brett Balloch stepped down as association president after four years in the role and a total of eight on the Board. Here the Anglesea Golf Club superintendent looks back on a challenging yet rewarding tenure.

Brett Balloch joined the ASTMA Board in 2012 and was elected president in 2016. He stepped down from the Board at the August 2020 AGM

The past two years of Balloch's tenure has seen a marked increase in the areas of advocacy and governance, with the key initiative the rebranding to the Australian Sports Turf Managers Association



There have been a few other achievements and initiatives worth mentioning that have occurred in the 'calmer' times. The Future Turf Managers Initiative (FTMI) has now grown to the point that positions are coveted among the 'up and coming' members. Member benefits have also grown. Two good examples are the securing of six turf management positions as part of the now rescheduled Tokyo Olympics to lead course management teams which can hopefully be honoured next year. Also, four positions have been made available as part of the TPC Volunteer Program.

Just recently there has been the launching of The R&A Greenkeeping Scholarship to all sports turf management students in Australia, as well as the launching of the GEO pilot programme in Australia. Working with the Office of the Victorian Skills Commissioner (OVCS), there has also been the production of advocacy videos extolling the benefits of a career in sports turf management.

The final achievement I would like to mention is the successful relaunching of a much improved certified sports turf manager

programme. This is something that had always been at the forefront of my thoughts while on the Board. It always seemed to me to be one of the most important pieces of the jigsaw in growing our professionalism and standing within the turf, golf and wider communities.

At last there is a programme that can reward members who have taken it upon themselves to further their education and better themselves personally. Hopefully this can lead to, among other things, a better pay structure like that found in those industries that have licenced and master members. Pleasingly acceptance and uptake by the industry has been excellent.

HANDING OVER THE REINS

I had come to the decision that my four years as president was a long enough tenure and it was time to step away and pass on the gavel. After all, things had been going along very well and there was a member who had willingly nominated to come on to the Board to make that transition easier. What of course no one suspected was a global pandemic!

Just to bookend my term as ASTMA president, we had to sadly cancel this year's conference for the first time in its history. The COVID-19 pandemic has certainly added a big question mark, with many challenges ahead for the association and industry as a whole. Some of those challenges will involve future sustainability, managing the environment, recruitment and retention of staff, funding for research and member engagement.

All of the above pales into insignificance as the short-term challenges (and let us hope they are short-term) of the financial situation and implications caused by COVID-19 are dealt with. The loss of the conference this year, which annually is one of the association's main streams of income, will lead to some changes going forward. As with the world, we will adapt as best we can. The association is in a good spot financially at the moment to get through this and rest assured is doing everything possible to stay engaged with members.

In closing, it would be remiss of me not to thank some key people. To all our trade partners, thank you for your continued support; it is greatly appreciated by all within the association. I have already mentioned the great work the staff do at our Clayton headquarters and once again they have continued in these difficult times to look after the association with the greatest integrity.

To our CEO Mark, I have written before how impressed the Board were in how quickly you picked up on how the industry operated. I think it was one of our best decisions to appoint someone from outside the industry. Thank you for your dedication and ability in leading the association forward.

To all the Board members I have served with – Tony Fogarty, Robin Doodson, Darren Wilson, Steve Lewis, Chris Burgess and Dave Thomson – thank you for giving up your time to improve the association. To association life member Peter Lonergan, who I have had the pleasure of sitting alongside for the past eight years, thank you for your support and guidance; the association does not have a more passionate advocate. You can have the presidential gavel back – rest assured it has been thoroughly sanitised!

Finally, the biggest thank you goes to my wife Cheryl. As we all know, a partner of a turf manager has to, at times, put up with quite a lot; it's a challenging industry. Without complaint, she supported me in everything required to enable me to fulfil my Board roles.

So my ride in the presidential chair has ended. It has rocked a fair bit but I have thoroughly enjoyed my time and hope that in some small way have contributed to the betterment of the association. Thank you. 🙏



Balloch with the ASTMA Board and staff at the 2019 Brisbane conference where Peter Lonergan was bestowed life membership of the association

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The volunteer-run Mallacoota Golf and Country Club was among the worst affected clubs during last summer's catastrophic bushfires

PHOTOS: VGCSA

Mallacoota mission

The Victorian border township of Mallacoota was hit hard by the summer bushfires, with the local volunteer-run golf course among those facilities badly impacted. As VGCSA committee members Shane Greenhill and Adam Lamb write, the association rallied around to lend a helping hand with the recovery.

In the 2019 Winter edition of the Victorian Golf Course Superintendents Association (VGCSA) magazine, superintendent Kellan Fiske penned an article on the 10-year anniversary of the Black Saturday bushfires that tore apart the township of Marysville and devastated the Marysville Community Golf & Bowls Club.

As part of his article, Kellan, who was just the apprentice at the time of the fires, wrote about the tremendous support that the industry gave to the club as they went about the arduous process of getting the course back up and running in the weeks and months after the fires. Members of the VGCSA, the then AGCSA as well as myriad trade companies and organisations assisted with a number of projects from stripping and returfing greens to building access bridges, constructing new tees and providing agronomic support and advice.



VGCSA volunteers and partner companies assisted in the recovery, undertaking a range of reinstatement works in mid-March to get the Mallacoota course back on track

The article reminded everyone of how well members of the VGCSA are prepared to jump in and support those in need, a trait that is common across the whole sports turf industry. Nothing quite compares to the experience of helping those who have fallen on hard times, whether that be in the form of losing their home, their workplace or, the most devastating form of loss and as it was in Kellan's case, the lives of someone they love.

Getting the opportunity to help out a community following a crisis gives you a small sense of how strong people are and how well people come together for no other reason than to make others feel that they have the support to get back on track. So was the case again at the Mallacoota Golf and Country Club following last summer's devastating bushfires.

Those fires affected a large part of east and north-eastern Victoria and burned an estimated 18 million hectares. During the worst of the bushfire period, that began with several fires in mid-2019 and were only finally contained in late March 2020, the air quality dropped to hazardous levels across Victoria and into NSW. Mallacoota made national and international headlines with trapped residents needing to be evacuated off the beach by the Australian Defence Force.

Among the many facilities impacted by the fires, Mallacoota G&CC was one of them. Located just outside of the NSW/Victorian border township right by the coastline, it is a course with no paid greenkeeping staff and nobody with an official title – just volunteers and a 'head volunteer' to run the show. These volunteers are the ultimate turf maintenance



Around 130m² of damaged turf and bare areas on five greens were replaced with new bentgrass sod

Google agronomists, learning most of what they know simply by trial and error and via the Internet. But as we would find out, they certainly knew a thing or two and just like a professional course superintendent they knew their patch of turf very well and were very proud of it. Therefore you can only imagine how difficult it was for them to see their course decimated by fire.

RALLYING THE TROOPS

In early February, the VGCSA received a phone call from one of its golf club members who wanted to help out Mallacoota G&CC but didn't know where to start. The VGCSA was asked if someone could make a phone call to the club and gain a sense of where they

required some assistance to get back on track. After a discussion on the phone with head volunteer John Bell, it was obvious they were putting their hand out and seeking assistance. From what could be gathered from John, the golf course was in bad shape following the bushfires and they needed some direction, or at least a starting point.

Following a trip to Mallacoota and a course inspection in mid-February, a priority list of where the VGCSA could help was put together. The inspection highlighted that the bulk of the work was around cleaning up and removing massive areas of burnt melaleucas and fallen eucalypt trees and limbs. The club was already liaising with a local tree contractor to work on this huge aspect of the clean-up.

GOLF INDUSTRY DIGS DEEP FOR BUSHFIRE VICTIMS

Golf clubs in Australia's worst bushfire affected regions have received a funding boost, thanks to the generosity of the golf community around the world. In January 2020, the Australian Golf Industry Council (AGIC) established the 2020 Australian Golf Bushfire Appeal Fund via a GoFundMe Page to raise funds for golf clubs who had been impacted by the fires.

The appeal generated \$67,000 which has now been allocated directly to golf clubs impacted by the bushfire season across Victoria, South Australia and New South Wales, as well as the South Australian Government Bushfire Appeal and Kangaroo Island Mayoral Bushfire Appeal.

AGIC chair Gavin Kirkman applauded the golf industry for its support during Australia's devastating bushfire season: "Our industry was heartbroken at the destruction that was caused by these fires," says Kirkman. "And now with COVID-19, these communities are facing an even tougher challenge, taking a

bigger hit due to the significant downturn in visitor numbers. I have no doubt that the monies raised will go a long way in assisting affected golf clubs in their recovery."

Kirkman said that the funding was in addition to individual fundraising efforts made by clubs and golf organisations, as well as the Melbourne Sandbelt's initiatives including the Premier's Cup in Victoria, which raised \$500,000 through a charity event held at Royal Melbourne Golf Club over the Australia Day long weekend.

The funding breakdown is as follows:

- Mallacoota G&CC, Vic – \$20,000 to assist in replacing the irrigation system which was destroyed by the fires;
- Tallangatta Valley GGC, Vic – \$2500 to assist with course repairs of the fire containment line;
- \$1000 to each of the three clubs on Kangaroo Island, SA (being Kingscote, Parndana and Penneshaw) to assist with new on-course items and in a

forthcoming event to attract golf related visitors back to the island;

- \$9500 to be donated to the SA Government Bushfire Appeal and a further \$9500 to the Kangaroo Island Mayoral Bushfire Appeal;
- \$22,500 to be distributed evenly between the nine golf clubs identified by Golf NSW as being affected by bushfires – Eden Gardens CC, Tura Beach CC, Moruya GC, Narooma GC, Pambula-Merimbula GC, Bermagui CC, Mollymook GC, Tuross Head CC and Club Catalina CC.

The bushfires significantly affected the eastern and north-eastern parts of Victoria with Mallacoota Golf and Country Club in East Gippsland experiencing direct major fire damage. Clearing of the damaged vegetation is still being carried out and a revegetation management plan is also currently being developed, with the \$20,000 donation to be used for assisting the replacement of the course irrigation system.



The areas where the VGCSA and members could help with were more relevant to areas of turf re-establishment, particularly on greens, providing advice on how to fix their non-operational pump system and replacement of damaged sprinkler heads and valve boxes.

The club is investigating details and quotes for a new pump station and an irrigation control unit which will hopefully be set up prior to next summer. They will also look into an irrigation system upgrade in the near future and potentially apply for a government grant to assist them funding the project. To get the ball rolling, just recently the club received \$20,000 as part of the 2020 Australian Golf Bushfire Appeal Fund established by the Australian Golf Industry Council (see previous page for more on this fund). Only greens and tees are currently irrigated on the automatic system (no fairway irrigation), but the club receives a 'steady' flow of recycled water at no cost.

With a plan in place following the initial inspection, the VGCSA put a callout to members via Facebook and it didn't take long for people to volunteer their time. Companies were willing to donate whatever they could to help and clubs which normally attract volunteers for tournaments were willing to deploy some staff to help out.



Seven of Mallacoota's couchgrass greens were oversown with bentgrass

On Tuesday 16 March a convoy of volunteers made the trip to Mallacoota (six hours east of Melbourne) to undertake a range of work. Among the tasks included turfing 130m² of bare areas on five greens, overseeding seven couchgrass greens with bentgrass and topdressing those greens. Kingston Heath Golf Club turf technician John Angliss spent the day with several regular Mallacoota volunteers/bush mechanics and

A number of the Mallacoota greens are Santa Ana couchgrass with bentgrass as the companion species. Those bentgrass patches were scorched in the fires leaving significant bare areas

gave them a master class in machinery maintenance. The machinery they had was in pretty good shape and just required a good bit of TLC and fine-tuning. The information they received from John was extremely invaluable.

The club greatly appreciated the assistance and acknowledged it has helped to fast-track the recovery of their greens. The greens surfaces have certainly improved now that the bentgrass has started to thicken up over the cooler months. The club passed on their thanks to all involved and wishes to



acknowledge the following volunteers and organisations for their assistance;

- Volunteers: Adam Lamb (Barwon Heads GC), Shane Greenhill (Sorrento GC), John Angliss and Ryland Tewes (both Kingston Heath GC), Ben Williams and Caleb Johnson (both Commonwealth GC);
- Rolls of bentgrass turf used to patch greens were harvested from the nurseries of Barwon Heads and Commonwealth golf clubs;
- Rural and Turf Irrigation (Greg Sinclair) – site visit early March, valve boxes, irrigation expertise and controller;
- Oasis Turf (Matt Steven) – seed;
- K&B Adams (Mark Eardley) – fungicide;
- Greenway Turf Solutions (Andrew Boyle) – fertiliser and wetting agent;
- Nuturf (Chris Newman) – seed and fertiliser; and
- Bayer (Craig Burleigh) – fungicide.

ACKNOWLEDGEMENTS

ATM wishes to thank the VGCSA for allowing publication of this article which originally appeared in the Winter 2020 edition of the VGCSA magazine. 卐

After being oversown, the couchgrass greens were given a heavy topdress

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JOHN NEYLAN



A new Weapon

*The long-awaited registration of the post-emergent herbicide methiozolin in Australia provides a new mode of action for turf managers to use in the war against *Poa annua*. John Neylan looks at research from Australia and overseas on its efficacy and stresses the importance of careful usage so as not to develop resistance.*

The turf industry has been waiting for the best part of 10 years for the herbicide methiozolin to be registered in Australia and finally it is here and ready for use. Methiozolin is a new herbicide to control *Poa annua* (annual wintergrass) in recreational turf and

has a new mode of action that is unlike other herbicides. Being a new mode of action in itself is a revolution as there has been no new post-emergent mode of action herbicides for broadacre weed control introduced to the Australian marketplace for about 30 years.

The control of herbicide-resistant *Poa*

annua has been an increasing concern over the past decade and was highlighted in the article by Barua et. al (2020) in the last edition of Australian Turfgrass Management Journal (Volume 22.3 – *Multiple resistance in Poa*, pages 44-47). The reality is that we have run out of herbicide options for effective and consistent control. Now that we have new chemistry that provides good control of *Poa annua*, particularly in creeping bentgrass putting greens, it is critical that its use is carefully considered.

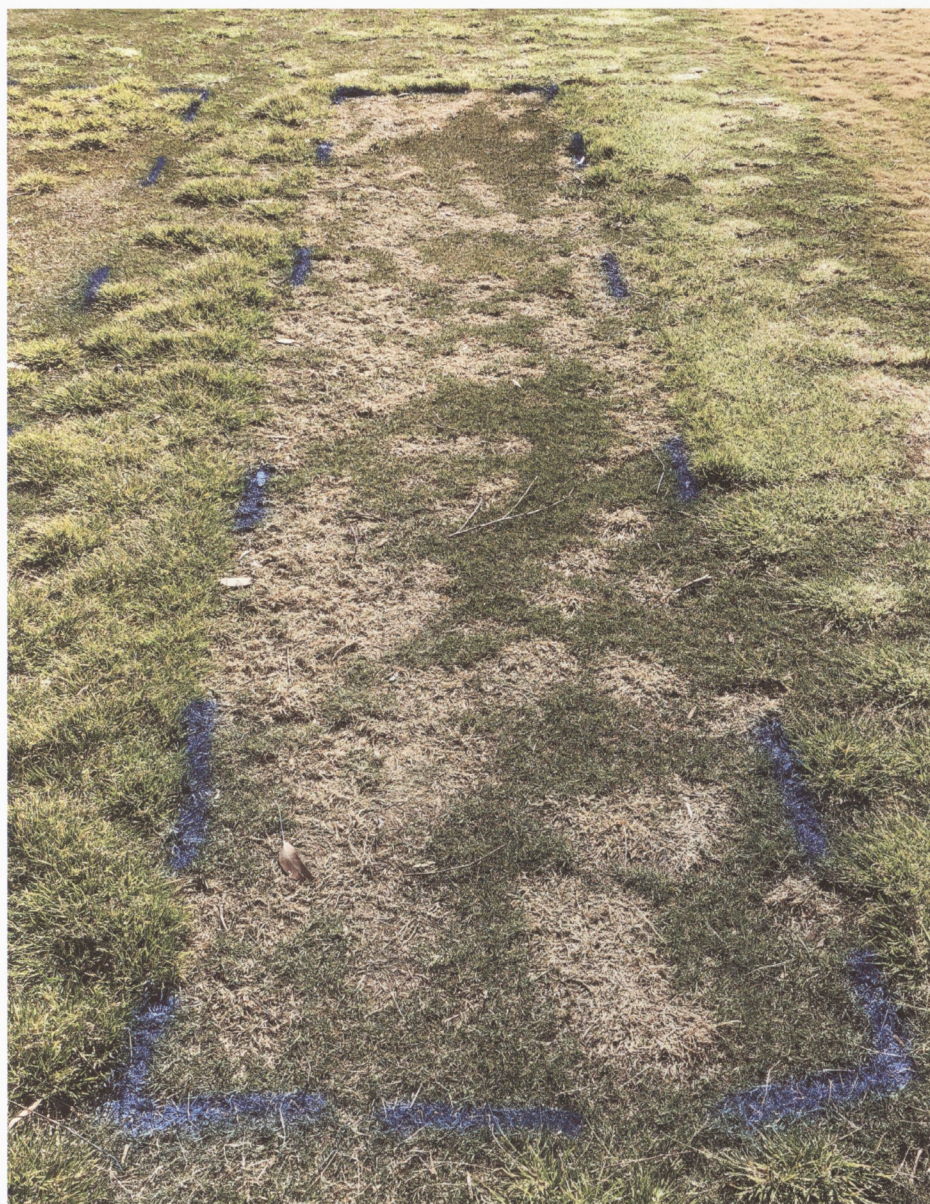
So what do we know about methiozolin? There have been numerous replicated trials undertaken in Australia and the USA with excellent results. These trials have been supplemented by local trials undertaken by golf course superintendents and turf managers to assess the herbicide under a wide range of climates, turfgrass species and varieties and management systems. What follows in this article is my perspective on methiozolin, drawing from the available literature and a methiozolin forum undertaken by Campbell Chemicals in November 2019.

HOW DOES METHIOZOLIN WORK?

PoaCure (active ingredient: methiozolin) was discovered and developed by Moghu Research Center Ltd., based in South Korea. Methiozolin is a new mode of action associated with cell wall metabolism and is unlike any existing herbicide mechanisms. The mechanism of action of methiozolin and related chemistry is not thoroughly understood and appears to be novel.

*Opposite page: Extensive efficacy and phytotoxicity trials, as well as special use permit trials, using methiozolin have been undertaken in Australia since 2012 prior to its eventual registration in May this year. Pictured is a couchgrass trial plot with a heavy infestation of *Poa annua* seven days after initial treatment at 4L/ha*

Left: The same plot from the opposite page but at 94 days after initial treatment and 50 days after the fourth application at the 4L/ha rate (see photo page 38 for plot at 121 days after initial treatment)





Methiozolin activity is based on root uptake and is enhanced by irrigation or rainfall before the spray dries on the foliage. Consequently, post-application irrigation is recommended. In research by Koo et. al. (2014) it was determined that when methiozolin was applied only to the foliage, almost no herbicidal activity occurred at any rate tested. In contrast, when the herbicide was applied only to the soil, efficacy was equivalent to the foliar and soil application. Therefore, herbicidal activity of methiozolin was clearly dependent on herbicide reaching the soil. Methiozolin activity depends on root uptake and has acropetal mobility, which means adjuvants and mowing are less likely to affect performance.

TAKE HOME MESSAGE #1:

- *Methiozolin is a unique mode of action.*
- *Activity depends on root uptake and has acropetal mobility.*
- *The research demonstrates that irrigation after application is critical in effective uptake of methiozolin.*
- *Adjuvants are not recommended.*

AUSTRALIAN RESEARCH

The research on methiozolin in Australia was undertaken between 2012-2014 by Sports Turf Consultants and consisted of eight efficacy and five phytotoxicity trials in four states – Victoria, New South Wales, South Australia and Western Australia – over two springs and an autumn.

The methiozolin (250g/L methiozolin EC) was applied at 1L, 2L and 4L of product/ha with four applications two weeks apart. Poachek (endothal) and Nominee (bispyribac-sodium) were included in the trials as industry standards along with an untreated control.

The trial work can be broadly summarised as follows:

- All rates of methiozolin provided a significant reduction in *Poa annua* compared to the untreated control.



The same couchgrass plot (as pictured on the previous two pages) but at 121 days after initial treatment

- All rates of methiozolin provided equivalent or better control than the two industry standards.
- The trials indicated a maximum of 77-88 per cent control from the spring applications of methiozolin at the 2L and 4L product/ha rate.
- Methiozolin is slower acting than Nominee and Poachek with the effect on the *Poa annua* not being apparent until about 4-5 weeks after the initial application.
- The 2L and 4L rates of product/ha provided significantly better control than the 1L rate of product/ha. There was no significant difference between the 2L and 4L rates of product/ha.
- In some trials where there was a high infestation of *Poa annua*, the 4L rate of product/ha resulted in an unacceptable turf quality because it removed the *Poa annua*

too quickly, leaving voids which disrupted the putting surface.

- There was phytotoxicity noted at one site due to the turf having been previously treated with paclobutrazol.
- There is possibly the need to increase nitrogen applications to fill in the voids once the *Poa annua* plants are killed.
- On high cut turf there was excellent control of *Poa annua* in kikuyu and couch at all rates.
- Excellent safety on many turfgrass species including couch, kikuyu, perennial ryegrass, tall fescue, creeping red fescue and hard fescue. (Author's note: Check for phytotoxicity on your turf by undertaking on-site trials).
- Can be used in both autumn and spring, however, slow bentgrass growth during winter may be an issue with the filling in of voids vacated by the dead *Poa annua*.
- The research in Australia is consistent with research undertaken in the US.

TAKE HOME MESSAGE #2:

The research demonstrates;

- *Safe on a wide range of turfgrass species.*
- *Slow acting.*
- *2L and 4L rates of product/ha is the most effective.*
- *Equal to or better than the industry standards.*
- *Interaction with other PGR's needs to be managed.*
- *Understand *Poa annua* percentage and impacts of a 'quick kill'.*

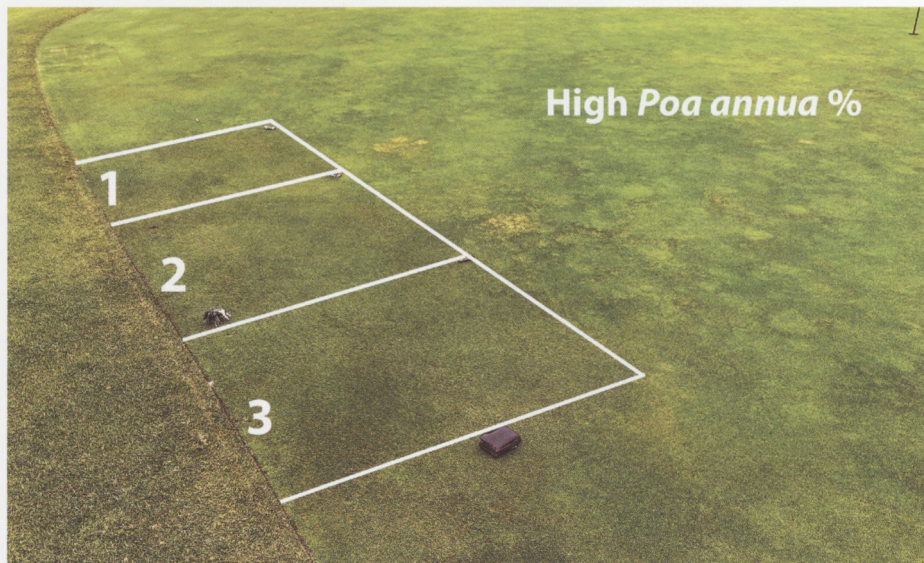
US RESEARCH

There have been numerous research trials undertaken in the USA and they have all demonstrated a high level of *Poa annua* control. In searching the Turfgrass Information File database there are 163 references to the use of methiozolin and while I only read a small selection, they all highlight its potential as a unique and effective herbicide.

There were two papers in particular that provide some important take home messages. Research by Brosnan et.al. (2017) indicates that methiozolin is an effective option for controlling annual bluegrass phenotypes with target-site resistance to several herbicides. This is most important where herbicides such as endothal and bispyribac-sodium are providing limited control.

A paper by Yelverton (2015) provides a good summary for any new, effective herbicide against *Poa annua* and that *Poa annua* will not

User trials are a critical part of understanding the performance of any new herbicide. Pictured is a trial undertaken on one Australian golf club's practice putter. Plot 1 (methiozolin at 4L/ha monthly – four applications); Plot 2 (2L/ha monthly – four applications); and Plot 3 (1L/ha fortnightly – eight applications)



necessarily be completely eliminated. Yelverton (2015) sums up that while most are hoping that methiozolin will be registered for use, it should be remembered that it is only another tool in the overall management of *Poa annua*.

TAKE HOME MESSAGE #3:

- High level of efficacy.
- Option for controlling herbicide-resistant *Poa annua* biotypes.
- Another tool and not necessarily the lone "silver bullet".

METHIOZOLIN FORUM

Research under relatively controlled conditions provides an excellent basis for understanding the efficacy of any new herbicide. However, for practical purposes the research is often limited to particular locations, climates and weed biotypes and doesn't always reveal the complete story.

In understanding the more complete story, new herbicides are often provided to turf managers to trial on their own patch under their management regime. This exposes the herbicide to a greater number of variables and tests the robust nature of the herbicide.

In the USA, an experimental use permit (EUP) programme was initiated to further improve methiozolin use patterns for golf putting greens, fairways and tees, and investigate potential edaphic or environmental variables (Askew et al. 2014). With over 165 golf courses signed up for the EUP programme, it allowed the company and the industry to gather more valuable information on the best-use strategies for the product under more controlled conditions.

In a similar fact-finding programme, Campbell Chemicals initiated numerous trials around Australia to also better understand the herbicide and how it performed under Australian conditions. At a discussion forum held in late 2019, Australian turf managers involved in the permit trials were provided with the opportunity to share and discuss their observations of using PoaCure, with a summary of the findings outlined below:

- *Poa annua* has to be actively growing. (Author's note: As a general observation on the growth pattern of *Poa annua*, it tends to be in peak growth in early autumn and early spring.)
- Phytotoxicity was noted on Penn A1 and Penn A4 creeping bentgrass and was related to segregation and some of the weaker strains being more susceptible to the methiozolin. Greens that have strong segregation are probably best treated in the spring.
- On a high traffic area with a high percentage of herbicide-resistant *Poa annua*, methiozolin provided close to 100 per cent control.



When using methiozolin, care needs to be taken where there is segregation in the bentgrass. Greens that have strong segregation are probably best treated in the spring

- Patience is important as methiozolin is very slow acting.
- Concern with some uncontrolled plants. (Author's note: It is unlikely that any selective herbicide will control all plants. Observation after initiating a herbicide programme is critical in assessing the success of the strategy. As part of any integrated weed control programme, manual removal of the persistent biotypes will always be required.)
- Avoid the use of paclobutrazol prior to initiating a methiozolin programme due to the possibility of an adverse interaction.
- In bentgrass surrounds or higher cut areas, methiozolin was not as effective with a 60-70 per cent kill and then recovery. (Author's note: In trials undertaken in 2019 on high cut turf or turf with a deep organic matter layer, methiozolin was not as effective. This was mainly associated with the post-herbicide water application – i.e.; not enough water applied – and the herbicide not getting to the root system.)
- Browntop bentgrass is severely affected.
- From a practical management perspective it was expressed that being able to make two applications rather than four would be easier to manage. (Author's note: In trials undertaken in 2019 there were interruptions to the programme due to rain or wind on the dates when the herbicide was due to be applied. This again impacted on the overall level of *Poa annua* control.)
- Methiozolin has been trialled on other turf species and some of the comments from turf managers involved included:
 - In Queensland, Windsor couch and Greenlees Park couch exhibited good tolerance.
 - Tifdwarf couch hybrid is sensitive to methiozolin in Queensland.
 - On ryegrass turf where *Poa annua* is resistant to ethofumesate, PoaCure removed 95 per cent of the *Poa annua*. It has had no adverse effects on the ryegrass or the root structure.
- During the question and answer session included as part of the methiozolin forum, there were several important concepts discussed among the group. Among these included;
 - **Resistance or tolerance?:** Where there are some *Poa annua* plants unaffected or recover after application of methiozolin, it may not be herbicide resistance but rather herbicide tolerance. The response from Moghu was that the level of control is in response to the rate of application. That is, increase the rate on more persistent plants and if there are strongly persistent plants, remove by other means. (Author's note: If higher rates are used, only do so after extensive trialling. More is not necessarily better.)
 - **Persistence:** The persistence of methiozolin in the soil was raised. The response from Moghu was that efficacy lasts a long time (potentially up to three years). It persists in soil for an extended time particularly when multiple applications are made. It is possible that germinating *Poa annua* can be killed due to methiozolin in the soil. Over four applications at 2L/ha at two-week intervals, PoaCure may cross over new germinations.
 - **Does the use of penetrants affect efficacy?** Methiozolin binds to soil particles and in leaching columns methiozolin doesn't move. Penetrants were considered unlikely to assist.



- **What effect does thatch have?** On pure sand there is greater movement of methiozolin compared to where there is a vegetation layer. Some thatch is considered acceptable. (Author's note: Research was conducted to evaluate methiozolin sorption to various sand-based soil media, typical of many golf course putting greens (Flessner et. al., 2013). Overall, the results indicate that methiozolin is available for plant uptake but binds enough to soil to resist leaching from the rootzone. The results also indicated that organic matter content greatly influenced soil sorption.)
- **Placement:** In the general discussion around the placement of methiozolin, it was emphasised that it needs to be absorbed by the *Poa annua* roots for effective control. Therefore it is important that the turf manager understands where the *Poa annua* roots are.

TAKE HOME MESSAGE #4:

- Methiozolin is very effective.
- Every site is likely to be different – understand the site conditions.
- Water rate is important depending on local factors.
- Trial first.
- Manually remove survivors.

BEST MANAGEMENT PRACTICES

Any discussion about a new herbicide and in particular a new mode of action must include a discussion about where it fits within a 'best management programme'. As we have seen when the first sulfonylurea herbicides (SU) came onto the market, over use can quickly render the herbicide ineffective due to weed herbicide resistance. So as methiozolin comes onto the market it is important to think about it in terms of a well-considered herbicide resistance strategy.

CropLife Australia (2014) and Resist Poa (2020) provide several key strategies to be considered in managing weeds generally, and *Poa annua* specifically;

- Effective herbicide resistance management requires a balance of chemical and non-chemical tactics.
- Emphasis on providing a dense and competitive turfgrass sward. A holistic approach of managing soil and plant health is required in order to do so.
- Rotation of herbicide mode of action groups within and across years. Think about where methiozolin will fit within this strategy.
- Emphasis on both pre-emergence followed by early post-emergence means of control, which effectively reduces the amount of *Poa annua* exposed to post-emergence strategies.



Bentgrass segregation can result in some patches being more sensitive to methiozolin in autumn-winter

- Use labelled rates at appropriate timings and stages of growth.
- Identify and monitor surviving weed populations and check for resistance. This can be done through Plant Science & Consulting (<http://www.plantscienceconsulting.com.au/>).
- If resistance is suspected, do not use the same product or mode of action.
- Scout after application and avoid allowing weeds to go to seed or proliferate vegetatively.

TAKE HOME MESSAGE #5:

Methiozolin must be integrated into a herbicide resistance management plan.

CONSIDERATIONS WHEN USING METHIOZOLIN

The following do's and don'ts have been drawn from information provided by Nadeem Zreikat (Colin Campbell (Chemicals) Pty Ltd) and an article by Jim Baird (2017).

- Know your *Poa* percentage – don't guess.
- You need to know the health of the turf and it has to be actively growing. Need to apply N throughout the programme.
- Understand your grass type and how it may react to methiozolin. Not to be used on browntop bentgrass and red or Chewings fescue.

- Stop the use of paclobutrazol two weeks before the programme starts.
- Don't apply methiozolin during high stress periods (e.g. height of summer and winter).
- Avoid waterlogged conditions. If rain is predicted, hold off until the turf dries and the profile drains.
- Renovations – if hollow coring, apply PoaCure two weeks before and wait two weeks before the next application.
- If overseeding, wait a minimum of 45 days after the last application.

In a 2017 article titled 'Annual bluegrass control in California' that appeared on Golfdom, University of California turfgrass specialist Jim Baird makes the following comments;

- Increasing the rate, shortening the application interval or applying close to wet and/or freezing weather can accelerate PoaCure activity. In most cases it results in the sudden loss of *Poa annua*.
- The herbicide severely injures colonial and velvet bentgrasses. Some creeping bentgrass cultivars appear to be more sensitive to PoaCure, as are various segregates of other cultivars. (Author's note: The 'sensitive' cultivars are not named and it is important to trial an area first.)
- PoaCure is a root-active herbicide and irrigation following application is essential to achieve desired results. This is especially important for higher-cut turf to help deliver the herbicide through the canopy and organic matter into the underlying rootzone.
- Heavy rainfall following applications speeds up activity, often beyond desired expectations. It also may cause injury or loss of desired turf.

TAKE HOME MESSAGE #6:

- Methiozolin is potentially an excellent new tool in *Poa annua* control.
- DON'T overuse it – as a new herbicide it must be integrated into a broader herbicide resistance management plan.
- Do your homework before using it on your surfaces. Trial it under your own site and management conditions.
- For golf greens, consider the cost of a programme vs resurfacing.

ACKNOWLEDGEMENTS AND REFERENCES

Thanks to Nadeem Zreikat, marketing development manager Colin Campbell (Chemicals) P/L for making the information available and providing contact with US researchers. A full list of references for this article can be obtained from the Australian Sports Turf Managers Association - contact admin@agcsa.com.au.

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PETER McMAUGH AM

The perfect **construct?**

*ATM expert columnist Peter McMaugh AM takes a rear-view mirror
look at USGA greens construction guidelines.*



I have now been looking at the USGA greens construction guidelines for about 55 years and I have seen them go through several revisions over that time (the latest being in 2018). And they are still revising them! Surely by now you would think this sort of thing is done and dusted (no pun intended), but I don't think the last words have been said just yet.

This is partly because the grasses in use today, especially the cool-season greens types, are vastly different from the grasses available 50 years ago. It is also again partly that irrigation capabilities are also so different. Long gone are the days when a pop-up sprinkler was just a knocker in a can! Cultural practices have also changed dramatically with much more emphasis on surface dusting to keep thatch under control. Is this the best method? How does it work in with the material with which the green is constructed?

Before we get into answering these questions, let's go back to basics and look at the fundamental concepts upon which the USGA guidelines have been formulated. The most important concept that one needs to grasp is that when you think about greens you have to appreciate that they are essentially just very large pot plants. The size might be huge, but the essence of the profile is that of a pot plant and the same rules apply as to how water behaves in the profile whether you grow grass or whether you grow flowers.

Wide shallow profiles hold more water than narrow deep ones of the same volume. Why? Because water drains under its own weight as opposed to the surface tension forces of the growing matrix trying to keep it in the profile. The growing medium pore space profile will be the same whether it is a wide pot or a shallow pot, but the overall relations between the column weight of the water will be quite different – shallow pot = short column, deep pot = long column. The surface tension forces will be the same.

Now that we have got that simple physics clear, let us look at the other parameters that affect the guidelines. The most basic of these is that it has to accommodate the putting cup. It is the depth of this that really defines the minimum depth that the profile can have. This in general means a minimum depth of about 280mm, which is why the presumed profile is 300mm for a USGA green. This has some

profound implications for those who transfer the USGA standards for greens profiles to sports field use.

Once you accept that the USGA system fits all turf use, then you have gone a step too far. Or maybe you have just given yourself a very big headache in making it fit the site size and the sands available and this is a very common happening. In this situation you have to let the materials available for construction determine the profile depth, as well as the use to which it is put. If there is no putting cup, that changes the equation dramatically. This digression into stadium profiles is a distraction from greens. It is nevertheless very important that you understand the difference, but we can leave that for another day.

Now that you have been pinned down by the depth of profile needed for golf, you need to see what materials are available that can constitute a suitable (and by that I mean workable everyday) growing medium for your grasses. This is where you need desperately to get your mindset right. To do this I will try to set a scenario where you can engage with the principles that control this decision making.

- **Principle 1:** Drainage, drainage, drainage controls the most fundamental need of a green to grow healthy grass and take traffic without excessive wear or compaction.
- **Principle 2:** The green should be built as a perched water table construction with a gravel drainage layer underlying the growing medium. The gravel layer must be matched with the growing medium to prevent infiltration of fines into the gravel.
- **Principle 3:** The green must hold adequate water in the surface layer and throughout the profile to enable good germination and even growth without needing excessive irrigation.

The essential concept of a perched water table comes from artificially shortening the

natural water column length for any growing medium. This shortening is achieved by putting in a large difference in size of the particles in interrupting layers making it much coarser than the natural soil and providing free water movement within the layer because it has a much lower surface tension than the natural layer.

This artificially creates a situation where the growing medium above the drainage layer cannot drain until it is totally or near totally saturated. But it will not drain totally and there is a saturated layer created above the gravel. This water will, if the growing medium is correctly sized, wick up as the plant's roots remove the water nearer the surface. This helps keep the profile at field capacity for longer than it normally would.

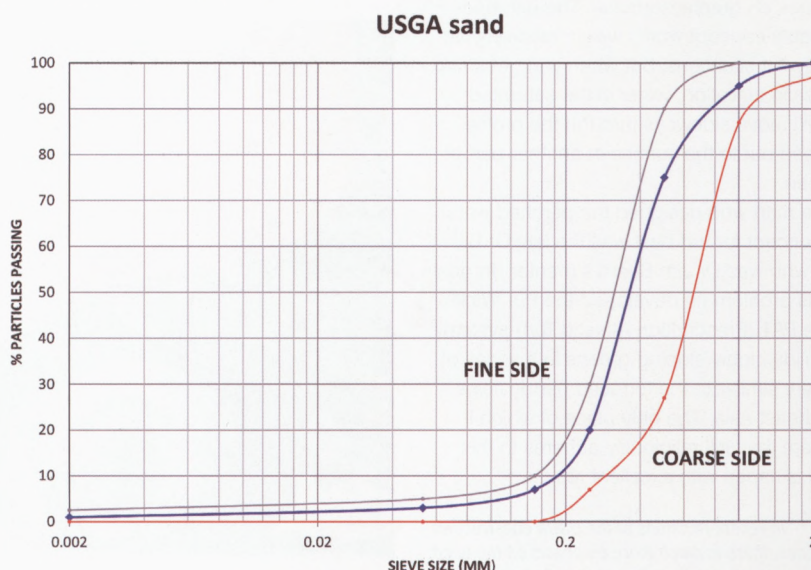
The USGA guidelines include a number of values derived from laboratory testing of growing media and from the 60-plus years of experience of which gives a good result. Among these is the formula for the D85/D15 particle size ratio between the gravel and the sand. This gives a bridging factor which says whether the sand can sit above the gravel without moving into the gravel. In recent revisions, there is much more emphasis on the need for uniformity in the product tested and that is very important and necessary.

It also proposes a spread of suitable particle size in an envelope such as the one shown in Figure 1 (below). What this graph shows is a fine side and a coarse side for suitability range of particle size. Within this range you can make a suitable growing medium for grass in greens construction. The USGA also gives an ideal air/water ratio for the pore sizes that these sands should have.

With these basic analytical practices comes the need to look at any set of results with a mindset that looks to at least 20, if not 30, years down the track, not just year two or three. If you have trouble with a green within

Opposite page: The USGA greens construction guidelines have constantly been tweaked over the past 60 years to take into consideration new grass varieties and cultural practices. What hasn't changed is the need to ensure you have a mindset that focuses on the long-term performance of the profile

Right: Figure 1. The USGA construction guidelines propose a spread of suitable particle size in an envelope within which you can make a suitable growing medium for grass in greens construction





a year of it being built, then you have a case of sheer carelessness on your hands. If you have trouble about year three or four, then the specification or the choices you have made have usually erred onto the too fine side.

Yes, it is harder to get a good establishment of bentgrass seed into a coarser sand. It does need some nursing through its early stages because the green's surface will be very firm. Yes, you will get complaints that the new green won't hold pitch shots – that will be a given for probably 3-4 months. After that it should be much easier to get the nutrition for thatch development into good balance and there are good alternatives to seed in vegetative propagation.

Remember that with good drainage comes increased leaching and you need to keep on top of the necessary spoon feeding. But I can hear the cry, 'we don't spoon feed, we use slow release'. My answer... go back to basics. If you don't know the basics of nutrition, you had best go back to school and learn them.

When Gary Beehag and I showed the results of our survey of a cross section of recently built greens types at the Australasian Turfgrass Conference in Wellington, NZ in 2018, it clearly showed that only the greens with a high percentage of macropores had the capacity to develop a high percentage of roots beyond 100mm. And as I said for the final word, the major variable in this study was the management – in other words, the superintendent!

You would expect to see far more uniformity of results if you were all being guided strictly by the USGA specifications. I know they are meant to be a guide, but you seem to have as many interpretations of them as there are practitioners. Long-term results are what speak the loudest.

There is another area where following the USGA specifications to the letter can also lead to problems. That is when the architect puts in big slopes on greens surfaces. The perched water table concept works well in relatively flat or totally flat situations, but when you get sharp changes in elevation, water in the saturated layer will move sideways through the profile and bleed out to the surface in another part of the green.

The man who designed the perched water table concept for turf best was the late Dr Bill Daniel who was Dr Jim Beard's mentor. To deal with this problem he developed the Pur Wick and the PAT (Prescription Athletic Turf) system. This builds highly sloping greens in a series of bays very similar to the terraced paddy fields of southeast Asia. The only place of which I am aware that still religiously adheres to this system is Japan with excellent results.

In recent revisions of the USGA construction guidelines, there is much more emphasis on the need for uniformity in products being tested



Drainage controls the most fundamental need of a green to grow healthy grass and take traffic without excessive wear or compaction

Going back to the first concept expressed in this column, that a golf green is just a very large pot plant, ask yourself this question. 'How long is the life of a plant in a pot before you need to replenish or repot the plant?' Quite a short cycle when you compare it with a golf green. So because of this, we have spent a lot of energy on developing systems for renovation on a regular basis.

In a previous column I have questioned the need for all the highly accurate laboratory tests for growing medium on the grounds of turnaround time and cost and a degree of scientific accuracy that I consider over the top for a bulk earthwork construction. Looking in the rear view mirror is what brought me to that conclusion and I have offered a simple alternative to that, with the big proviso that you monitor the uniformity of product with the utmost rigour.



Here I want to question the current concept of continual renovation with minor surface disruption as an alternative to the previous major disruptive hollow tine coring to 100mm-plus accompanied by heavy sand topdressing and some serious disruption to playing schedules. A serious discussion of that is probably beyond the capacity of this column but it is one that has to be gone through again with long-term thinking, not short-term.

Here again the current USGA policy is in favour of sands on the finer side of the suitability envelope for topdressing. I can only see long-term management problems with this practice and I think what it will mean is that we will all have to go back to the 'ancient' practice of lifting the surface in a regular planned way to keep greens in good condition.

While the USGA system works very well on courses where you have adequate budgets and the manpower to deal with its maintenance requirements, there are a very large number of clubs where budgets are very tight and manpower is restricted. Some of these are managed by superintendents who spend a lot of time thinking about what to do to get the very best results.

Look at this scenario for instance... 'I deep core with 16mm tines in the first few weeks before spring. I topdress heavily with a fairly coarse, sharp sand which I spend a lot of time making sure I brush in as much as I can. I lift the mower height a millimetre or two and keep it at that until the grass heals over which generally takes no more than three weeks. The members almost don't notice the difference. By doing this over the years, I have almost built a new green on top of the old ones. I have always had to use short cups because of the rocks and clay under the green. They work quite well'. That is how this top class superintendent manages his problems.

I hope this article challenges you to think. If it doesn't then I have failed my job. 🙏

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Too much iron in the profile can lead to cemented layers that impede water movement through the profile

Iron issues

In his latest column, WA agronomy expert John Forrest looks at layering in golf course greens and the implications of having too much iron in your profile.

In past articles and industry presentations, the topic of iron has often cropped up. In the West, it has been a management tool to keep soil surfaces dry and control *Poa annua* and small broadleaf weeds. Rates of sulphur have been credited for the control of several diseases and its application is part of such a programme.

There is no doubt that it produces a green surface keeping golfers happy without excessive growth. But poor performing greens through the winter months, surfaces that appear not to handle high traffic due to a lack of infiltration and surface pooling instantaneously as rain falls, appear to be more than compaction related. After taking thousands of soil samples and studying profiles, it was clear to me that more was at play.

Recently, I went to inspect a football oval that was not draining in the past with one of my mentors, well-known turf management training icon here in the West, Lin Hambleton. Arriving on site, we walked around the oval, which was indeed saturated, and as with any drainage issue a view to where the drainage point or exit point was a high priority. Lin also had his trusty 50mm soil profile sampler on hand and we walked out into the middle of the boggy mess. Several plugs were taken and we moved to dry ground to inspect them.

It was a sandy profile with a sizeable thatch and mat layer on top. Just below the organic layer was an orange layer 2mm-3mm thick. Once we got through the orange layer, the profile was clearly dryer. While the organic layer was certainly where all the moisture was, the orange iron layer was impeding

water movement and it was clear that this was stopping water from draining out of the organic layer.

Looking around the ground, one could see heavy staining from the bore water which had high levels of iron in it. Iron was oxidising as it was pumped out of the aquifer through the irrigation system, landing on the ground via the nozzle. The water still had a considerable amount of iron in solution that entered the organic matter, playing a big role in the retention of moisture.

The profile plug told the other part of the story. As mentioned, just below the organic layer, almost right on the interface of the finer organic matter and the coarser sand below, was this orange layer of iron. When the iron, in the ferrous form, moved through the saturated organic layer, it was in solution. But as it

moved into the coarse sand below, oxygen was added and the oxidation changed the iron to a ferric form through a loss of an electron (Fe^{2+} to Fe^{3+}). The ferric form is a solid that can create a cemented iron layer across the profile.

In the US, due to observations of soil profiles laden with iron in golf greens, a research project was undertaken by Obear et. al. (2014). The objectives of their research were to investigate in detail the physicochemical properties and processes of Fe-cemented layer formation in golf course putting green soils across the USA. They found that layers may become cemented in less than 10 years after construction of the putting greens and they may form at rates up to 1.5mm per year. The cemented layers form rapidly due to management (irrigation and Fe fertilisation) and construction techniques. Such management factors are common among sites across the world, leading them to hypothesise that the Fe-cemented layers could form in any golf course soil with an abundant supply of Fe and a redox potential boundary.

SOIL PROFILES

Soil profiles in golf greens are a challenge to get right, with a multitude of inputs having roles that can be difficult to perfect. The microenvironment of a putting green surface requires an in-depth knowledge of a developing, living ecosystem. On the surface, the profile is judged by golfers for its consistent, true ball roll and of course, rightly or wrongly, pace is part of that assessment.

Plant growth increases when conditions are ideal. However, in many parts of Australia golf is a winter sport when plant growth may slow at a time when the demand is highest, particularly in cooler southern Australia. High traffic requires a turf coverage to protect the surface and to produce the even roll targeted. A thin surface for golfers can become tricky to navigate with sprig and pitch marks disturbing the trueness of ball roll.

As the turf plant grows, it sheds debris, roots, shoots and leaves for microbial populations to break down, leaving behind a fine organic material (humus) that when saturated can float. Mowing or rolling in wet conditions with a thin turf coverage results in the colloidal particles floating to the surface, creating a thin organic layer when wet and sealing the surface when it dries.

Organic matter layers can cause a multitude of issues in golf green profiles, holding moisture and creating a soft surface that deforms. Regular dusting assists to break down these layers from developing, with larger pore spaces increasing oxygen, allowing drainage and improving microbial activity. Water-holding layers create profiles with limited



*Top: Excessive iron evident at the bottom of a plug;
Above: A profile laden with iron showing poor root structure*

oxygen, an environment where black layer can appear. A side effect can be the production of sulphides, in particular hydrogen sulphide, which is toxic to turf roots. The rise in organic matter may increase soil microbial activity that has an extra oxygen demand.

Using ferrous sulphate applications can be justified for several reasons, but the amount of product used can be questioned. At the start of this article, the wet oval was a classic case of there being too much iron in the profile, moving from a soluble substance into a solid and impacting the water movement.

A continuity of particle sizes and pore spaces is the target and small variations in these can have major affects if high rates of iron are added to the mix. Obear found that the change from sand to gravel and the oxidising of the iron saw it drop out of solution and become a solid, creating a cemented layer that impedes water movement, a problem that was observed at the bottom of a sand profile



Excessive moisture in the profile during summer can result in cooked turf

that may be 30cm thick above a gravel layer (perched water table).

If it occurred at the top of the profile then alarm bells start, especially if the water infiltration and percolation are impeded, holding water close to the surface.

Photographs of iron saturated soil profiles in greens demonstrates a worrying side effect.

At the surface, if dusting or topdressing has occurred infrequently due to various reasons like wet weather, lack of labour or budget issues, variation in the profile appears. With sand, then organics intermingle with sand or worst-case scenario an organic layer only. Ferrous sulphates at high rates now add another aspect to the microenvironment.

High use of sulphate-based fertilisers may also see the soil pH drop. At a lower pH, iron and several other micronutrient metals become more soluble and available. When organic layers slow the water movement and the pH is acidic, iron can remain in solution and as it moves from the finer organic layer into a coarser sand oxygen is added.

Oxygen converts iron by the loss of an electron into a solid which sits at the interface, forming a slightly cemented layer that impedes water movement. On the green surface problems start to compound. Not only does the organic matter hold the water, but moisture that moves deeper in the profile is slowed by the iron layer. In winter, a profile without oxygen develops and with that a very fine black layer that increases as saturation continues. Roots struggle to grow through the black layer or a saturated, oxygen-free soil. The result is a soft, waterlogged deforming surface through winter with a thinning turf cover and no ability to recover.

Summer arrives and conditions can get worse, as holding too much water in the surface can cause major problems. Conditions that have been created result in short roots and as the weather warms a cool-season grass needs to be able to take up water. Short roots mean that regular watering is essential to keep the plant alive. We have developed a sponge like surface and on those very hot days when temperatures reach the high 30s, and on occasion 40s, high moisture levels create an environment where turf roots are scalded.

At this point oxygen in the profile is critical, but iron layers can be created without realising and minimising application rates is required. A balance of nutrients is the target. Soaking the profile every two or four weeks with iron can have detrimental impacts on the soil profile.

REFERENCE

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With the expectations for golf course conditioning seeming to increase every golf season, the importance of being able to communicate effectively with golfers and decision-makers cannot be overstated

Getting personal

As USGA agronomist Zach Nicoludis writes, it cannot be overstated how important it is for a superintendent to communicate with golfers to educate them about course maintenance practices and receive feedback on course conditions.



Golf course superintendents must develop a diverse skill set to provide high-quality, consistent playing conditions for golfers to enjoy. While it is not surprising, course conditions are consistently cited as the number one factor influencing golfer satisfaction. Ensuring golfer expectations are met depends heavily on the golf course superintendent's ability to thoroughly understand agronomic principles and how they can be applied to balance turf health and playability.

While superintendents have a good understanding of the reasoning behind all the various maintenance practices that must be completed, a typical golfer does not have an advanced understanding of agronomy. This can lead to a disconnect between golfers and superintendents as to why maintenance practices need to be performed or why the golf course is playing a certain way.

Along with an intricate understanding of agronomics, the ability to communicate effectively is a fundamental component of the skill set necessary to find success as a golf course superintendent. The importance of communication cannot be overstated when it comes to educating golfers and decision-makers who may not completely understand the short- and long-term impacts of various maintenance practices on turf health and playability.

Golf course superintendents are all too familiar with the fact that some maintenance practices, such as aeration and topdressing, can be considered a nuisance to golfers. Many golfers would prefer not to be bothered with any temporary disruptions even though these practices have a significant impact on the superintendent's ability to deliver quality playing conditions – including faster, firmer greens.

Conversely, golfers may request certain maintenance practices, such as double-cutting and rolling, be completed more frequently without fully understanding how turf health could be jeopardised by excessive mechanical wear. These two examples illustrate how critical effective communication can be. A superintendent must be able to explain the importance of basic agronomic principles to golfers and decision-makers in order to obtain their support for golf course maintenance decisions.

Many superintendents utilise online tools, such as social media or blogs, to communicate with golfers at their course. While these tools can be effective, especially when it comes to reaching a large audience quickly, they do have their limitations. Most notable is the loss of personal interaction.

Talking with golfers when they are present at the course is a strategy often not utilised to its fullest potential. Technology can certainly be used as an aid for connecting

with golfers, but becoming comfortable with some more personal communication strategies can go a long way in educating golfers and receiving feedback that can be used to make maintenance decisions.

LISTEN AND ASK QUESTIONS

Superintendents have a long list of responsibilities and are usually being pulled in multiple directions every day. This is an expected part of the job, but it is important to remember that explaining an issue is often just as important as solving the issue.

Communicating with golfers should be included as a top priority among a superintendent's responsibilities. For some, the ability to communicate with golfers may come naturally, while others may need to work at perfecting this skill. Regardless of whether someone is a natural, communicating with golfers should not be bumped too far down the to-do list, even when things out on the course get hectic.



Communicating with golfers helps them understand why various maintenance practices are performed and why the course is playing a certain way



Topdressing greens can be viewed negatively by golfers. Helping them understand how cultural practices improve putting quality can change their perception

When communication is mentioned, speaking likely comes to mind. While what we say is a major component of communication, there are other important elements that should not be overlooked, with listening being at the top of the list. The saying 'If you are talking, you are not listening; if you are not listening, you are not learning' puts into perspective why listening is an important part of communication. Every conversation has its ebbs and flows where each participant has an opportunity to talk and to listen. If you have never thought about how important listening is to communication, take notice of how you listen and whether this is something that needs improvement.

There is a balance when it comes to listening and speaking. When a conversation becomes lopsided because one person is doing all the speaking, those doing the listening are not able to offer their input. Considering how important golfer feedback is for superintendents to maintain a golf course that meets golfer expectations, it is critical to have a balanced conversation when communicating with golfers. A superintendent must have the ability to process the information provided by golfers to determine if it can be used to help guide maintenance decisions, or if it is an opportunity to educate golfers on maintenance practices.

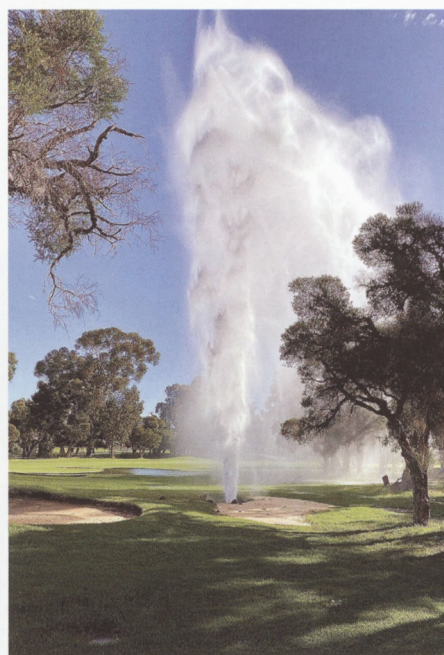
Daily communication with golfers provides opportunities to listen to their opinions and get a glimpse of how they view the course. If trends in golfer feedback don't align with your current maintenance priorities, it is possible blind spots have developed in the agronomic programme. Identifying these blind spots makes it possible to adjust maintenance practices and improve the overall golf experience.

Without regular communication, potential issues could go unnoticed or a simple misunderstanding could become a larger issue than it needed to be. Also, regular communication with golfers shows that

their opinion is given consideration when maintaining the golf course. Letting the golfer's voice be heard is an important aspect of customer service.

Feedback from golfers can vary greatly. Some, as mentioned, is constructive and can be used as a guide to adjust maintenance programmes. It is also possible to find golfers that have developed misguided opinions about golf course maintenance practices. The Internet offers an abundance of information about golf course maintenance. While much of this information is accurate, like anything on the Internet, there are multiple unreliable sources.

It can also be easy for misinformation to spread when golfers at a course talk amongst themselves, compare playing conditions with friends who play at other courses or travel to play a new course. Golfers may receive



Proactive communication is critical when issues arise. Direct communication with golfers and other departments keeps people informed about anything out of the ordinary

limited or inaccurate information about course maintenance practices from sources that are not necessarily experts on the matter or familiar with the unique circumstances of a particular course.

Superintendents can explain how agronomic programmes must be tailored to fit the specific needs of a golf course, but it is unlikely that a golfer will receive a thorough explanation from another golfer about all the practices that were performed when discussing how fast the greens are rolling at the course their friend plays frequently. A golfer may have heard the greens were double cut and rolled, but not about the number of employees working on the maintenance staff, how well the soils drain, how trees were removed to increase sunlight reaching the putting surface, or that aggressive cultural management practices were performed earlier in the season to prepare the turf for intensive management practices geared to produce firm and fast conditions.

It is easy to understand how a golfer can develop a misguided opinion and after getting over the initial feeling of frustration when this situation occurs, the best approach is usually to use this as an opportunity to educate. However, a conversation of this type can be delicate and it is important to be informative without being insulting.

Asking questions can also be used as a strategy to steer conversations toward useful feedback. Maybe a change was recently made to the maintenance programme and there is a need to determine if golfers have recognised its impact. Carefully worded and properly timed questions can yield the honest feedback a superintendent is looking for from golfers. Depending on which questions are asked, a superintendent may be exposing themselves to criticism. While criticism can be difficult to accept, actively seeking honest opinions of the golf course makes it possible to identify areas where improvement can be made.

Seeking out the golfers rather than waiting for them to find you can produce two very different interactions. Taking a proactive approach to communicating with golfers about course conditions or other agronomic issues will be better received than if a golfer is surprised to find something out of the ordinary during their round.

It is important to speak with different types of golfers. Do not focus on who you know the best, the most vocal, or who holds the course record. Be sure to include both men and women as well as low handicap and high-handicap golfers. This will provide a more accurate cross section of the golfers who play the course. When discussing issues with golfers, be prepared with a solution. Having the problem already solved will put their mind at ease. Some questions may follow but

PHOTO: IDRIS EVANS (WAGC)

presenting the golfer with a solution will create a more positive conversation.

It is unrealistic to expect the superintendent to be the only one gathering feedback on course conditions and maintenance practices. Enlisting the help of key staff members, decision-makers and influential golfers can extend the superintendent's reach. When using proactive communication strategies, an effort will have to be made to educate the individuals being entrusted to relay information on behalf of the superintendent.

A STRATEGY THAT WORKS

Developing a facility-wide communication strategy that includes employees, decision-makers and golfers makes it possible to keep everyone better informed about course conditions and what maintenance practices are scheduled to be completed.

At the Country Club of Detroit, superintendent Ross Miller and the other department managers use a strategy that focuses on the 'why' when communicating with golfers. Their goal is to develop a unified understanding among employees and golfers holding leadership positions when it comes to scheduled maintenance practices and course conditions.

“The education and feedback aspects of communicating with golfers is unquestionably important, but don't overlook the relationship-building component as well.” - Zach Nicoludis, USGA

Miller and the agronomic team are not always able to be the first line of communication. Keeping employees from other departments – who often come in contact with golfers before and after their rounds – educated about what is taking place on the golf course from a maintenance standpoint makes it possible to expand the agronomic team's reach. Golfer questions can be accurately answered and any misperceptions about what is taking place on the course can be addressed. The goal is building a synergy among all the departments so accurate information is being delivered to golfers.

Golfers holding leadership positions are included in this strategy because they often field questions from other golfers about maintenance practices and playing conditions. Rather than being asked a question and having to seek out an answer, they can respond immediately.

Miller sends a daily email to all departmental managers, mid-managers, board members, green committee members and golf committee members. This email makes decision-makers on both the employee



Communicating with employees in other departments, such as the pro shop, can expand the superintendent's ability to provide golfers with timely information on course conditions

and membership side of the operation fully aware of what maintenance practices are being completed and what conditions can be expected. Miller finds that this email takes about five minutes to compose every day.

There have been instances where golfers enjoying a meal after their round have made a comment regarding maintenance practices on the golf course and an individual working in the clubhouse was able to explain why those particular maintenance practices were being

to communicate effectively with golfers and decision-makers cannot be overstated. The information provided can be very useful for keeping people informed about the agronomic programme. Effective communication also offers an opportunity to address any misperceptions before they become widespread or problematic. It is important for superintendents to tell the real story and educate golfers or misperceptions can become reality.

The education and feedback aspects of communicating with golfers is unquestionably important, but don't overlook the relationship-building component. A superintendent can have the most advanced knowledge of agronomics, but without the ability to communicate success will be difficult to achieve.

It is not a coincidence that successful golf course maintenance operations make it a priority to communicate with golfers. How this communication takes place varies from course to course. While the superintendent cannot be the only one communicating about course conditions and maintenance programmes, they should certainly be leading the charge to develop a communication strategy like the one implemented at the Country Club of Detroit so golfers are well-informed.

There is one important aspect of communication that has not been mentioned – the impact of saying 'thank you'. Whether it is in response to negative feedback or a compliment, those two words can leave a lasting impression. With that being said, thank you for taking the time to read this article.

ACKNOWLEDGEMENTS

ATM wishes to thank the USGA for allowing publication of this article. The original article, titled 'Communicating with today's golfers', appeared in the 3 July 2020 edition of the Green Section Record. Zach Nicoludis is an agronomist with the USGA Green Section's Central Region. ۞

LEAD THE CHARGE

With the expectations for golf course conditioning seeming to increase every golf season, the importance of being able



Not everyone likes wearing a face mask, but wearing one allows us all to be safer and shows support for everyone else in our community

Covering up

As ATM compliance expert Terry Muir writes, wearing a mask is not about personal liberty, it's about communal health in the current pandemic climate.

We've all seen the video in which an anti-masker claimed a business was "discriminating against her...as a woman" for requiring her to wear a mask to enter their shop and that forcing her to do so was "a breach of the 1948 Charter of Human Rights to discriminate against men and women".

Amnesty International responded quickly: "Dear Australia, wearing a mask to keep everyone safe does not violate your human rights. Love, Amnesty International. We've been standing up for human rights since 1961, we'd know." The Law Institute of Victoria followed and stated that the government's direction to wear a face covering is not contrary to human rights. Then, the Victorian Equal Opportunity & Human Rights Commission announced that the directive does not violate any international human rights instruments.

Great, so the wearing of masks is not a breach of human rights. Now let's address the effectiveness of masks in stopping COVID-19 transmission. Medical experts from across the globe agree that masks help limit the spread

of COVID-19, particularly in areas such as Victoria and parts of NSW where community transmission is taking place.

The Australian Medical Association said in July that;

- Mask use in areas of community transmission was now essential, following on from the strong evidence around mask use that has been emerging.
- Masks reduce virus spread when worn in areas where there is community transmission.
- Masks add another layer of protection to the other significant measures of physical distancing, hand hygiene and cough etiquette.

The US Center for Disease Control and Prevention also reported that:

- Cloth face coverings are a critical tool in the fight against COVID-19 that could reduce the spread of the disease, particularly when used universally within communities.
- There is increasing evidence that cloth face coverings help prevent people who have COVID-19 from spreading the virus to others.

It is obvious that face coverings are a powerful tool in the COVID battle. They work and being required to wear them does not infringe on human rights. Yet, many still refuse to wear them. Dr Julia Marcus, epidemiologist and professor at Harvard Medical School in her article 'The dudes who won't wear masks', examined the behaviour of former Major League Baseball player Aubrey Huff who announced on Twitter that he was no longer going to wear a mask inside any business, claiming "It's unconstitutional to enforce... Who's with me?".

The video went viral, but a point of interest from his video is that he appeared to be wearing a seat belt! So, the argument could be put forward that this anti-masker isn't immune to public health advice. After all, he is wearing a seat belt, so why the resistance to wearing a mask? Dr Marcus writes... "Unlike a seat belt, which directly benefits the user, face masks primarily protect everyone else, particularly people who are older or have underlying health conditions that make them vulnerable to the coronavirus."

One research team has reported that men are especially likely to opt out of wearing

masks, believing them to be 'shameful', 'a sign of weakness' and 'not cool', even though men are at higher risk than women of dying from COVID infection. A similar pattern has emerged during prior pandemics and across other areas of health where men, especially those who endorse traditional masculine gender norms, have been less likely than women to engage in protective health behaviours.

Behaviour needs to change and that will be a slow process. It requires a conscious evaluation that the benefits of change outweigh the consequences of doing nothing. And, change is very hard. If it were easy, we would not be having these conversations. Most of us already feel compelled to do many things to ensure public health — vaccinate our children, wear a seatbelt, wear a helmet, don't smoke — so the challenge is to make mask-wearing habitual. Make it part of the physical landscape, and subsequently, less noticeable.

Apart from Victoria, wearing a mask in the community is currently not mandatory. However, the NSW Government has now recommended that people wear face masks on public transport or anywhere where they can't social distance. It is expected that this guidance may change and the use of masks is likely to be increasingly mandated. Australian legal firm Clayton Utz released a document on a clever 'Can/Should/Must' strategy.

Can: Employers can provide a reasonable and lawful direction to workers to wear a mask but must consider practical and legal implications. This includes whether the requirement to wear a mask is mandatory PPE to control risk, is in compliance with public health orders or for other reasons. If a worker refuses to follow a direction to wear a mask, it may result in a right to take disciplinary action or exclude the worker from a worksite. However, the basis of the direction will be critical to determining whether it can be enforced, particularly in relation to objections on health, religious or other lawful grounds. Employers should have a clear and procedurally fair process in place for the action it will take if a worker refuses.

Should: Given the advice of government health authorities, employers should require workers and visitors (including customers) to wear a mask as a condition of entry. This will depend on the public health orders in place, other risk mitigation measures, whether physical distancing can be maintained and the employer's risk assessment. In any event, risk assessments should now be reviewed.

Must: There are some circumstances where masks form part of critical and mandatory PPE (for example health providers). Where a mask is considered necessary PPE, the employer must comply with the relevant laws including in relation to its:

- Supply (including ensuring it meets relevant standards);
- Use (including enforcing its use);
- Fit for purpose (including fit testing);
- Training and provision of information in its use.

Employers must ensure that communications about the use of masks are clear and consistent. If you elect to, or are required to, mandate the use of face masks as part of risk mitigation measures in the workplace (as opposed to in compliance with a public health order), the use of masks becomes mandatory PPE and the business will have a duty to:

- Consult with their workers when selecting PPE;
- Supply the PPE without cost to the employees;
- Ensure, as far as is reasonably practicable, that the PPE is used or worn by their workers and that the PPE is fit for purpose;
- Provide their workers with information, training and instruction in the proper use and wearing of PPE and its storage and maintenance.

Not everyone likes wearing a face mask. But this is not forever and wearing one allows us all to be safer and protect each other. Wearing a mask shows your support for everyone else in our community. 🙏



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Golf courses are ideally placed to provide habitat, sanctuary and food sources for koalas, as well as act as safe 'super highways' for them to travel through

Koalas on the green

Kate Torgersen looks at a unique initiative on the Gold Coast which is seeing golf courses play a key role in providing safe havens and food sources for an Australian icon.

We all know how valuable our golf courses are to the environment, especially within urban areas, but this initiative I am about to tell you about is showcasing how golf courses can play a critical role in the long-term future of our many vulnerable flora and fauna species.

Earlier this year I was introduced to David Cuschieri, an interior designer from the Gold Coast. You may be wondering how an interior designer can be helping the environment on golf courses...? Well, David and his wife Heidi are also volunteer wildlife rescuers and carers and have come up with an initiative called 'Koalas on the Green'.

The initiative came about after they attended over 100 callouts to sick and injured koalas around the Gold Coast just last year. When a koala is rescued and rehabilitated by wildlife hospitals, according to Department of Environment and Science regulations they

must be released within five kilometres of its rescue location. And where can you find an expansive green area among the ever-growing urban sprawl... a golf course!

Not only are koalas battling with urban developments, but we also witnessed the devastating bushfires that occurred last summer. It is believed that the bushfires decimated around one third of Australia's remaining koala population, almost to the point that groups are calling for their conservation status to be upgraded from vulnerable to critically endangered. If there was ever a time to act, that time is now!

PERFECT ENVIRONMENT

Why a golf course? Well, they provide habitat, sanctuaries, food sources and safe 'koala super highways' as David calls them, allowing koalas to travel safely, avoiding dog encounters, car strikes or being trapped by residential fences.

One golf course that has embraced the Koalas on the Green programme is Arundel Hills Country Club. This all came about when Charles the koala was rescued by David and Heidi from a property near the golf course in mid-2019. Charles was unable to see as he had chlamydial conjunctivitis and because of his condition would have most likely starved to death, been struck by a car or attacked by a dog.

After Charles was treated at Australia Zoo's wildlife hospital, the dilemma then became finding somewhere safe to release him within his home range. Arundel Hills was the perfect solution and he was released there to hopefully enjoy a more peaceful life. Releasing Charles at Arundel Hills was the inspiration for David to instigate the Koalas on the Green programme which involves planting food and habitat trees within golf course environs to provide sanctuaries, safe havens and food resources for urban koala populations.

Starting in November 2019, the pilot project at Arundel Hills has been a great success. Working closely with golf club, David and his team of volunteers have planted koala food trees in areas that do not compromise or interfere with the members or obstruct residential views. At first there were mixed reactions from members fearful that more trees would create more hazards. However, as time went on, there were very positive responses.

The programme was initially self-funded by David and Heidi before they successfully applied for a Commonwealth Government Community Environment Program Grant through the local member for Fadden, The Hon. Stuart Robert MP. As of the end of May 2020, the team has planted 240 trees and installed tree guards.

The trees that have been planted at Arundel Hills are specific eucalypts that koalas prefer. There are over 700 species of eucalypts in Australia, however, koalas only eat a relatively few species. Among those planted at Arundel Hills include:

- *Eucalyptus tereticornis* (forest red gum or blue gum);
- *Eucalyptus microcorys* (tallowwood);
- *Eucalyptus robusta* (swamp mahogany or swamp messmate);
- *Eucalyptus propinqua* (grey gum or small-fruited grey gum).

These are all endemic species and different species were planted in different areas around the course based on varying site conditions. A few *Melaleuca quinquenervia* (broad-leafed paperbark) were also planted in areas which were permanently boggy. These trees are mainly shelter trees and help to create connected wildlife corridors. Koalas will occasionally eat the leaves and blossoms of these trees too.

David and his team of volunteers regularly check the plantings, remove weeds and maintain them. After some issues with kangaroos foraging the new plantings, they are currently installing and experimenting with some more sturdy tree guards in one area.

The plan for the next 12 months is to undertake ongoing maintenance work to ensure that the trees survive. The trees will need time to mature before a positive impact can be seen, but in the meantime the initiative is creating greater environmental awareness not only among the golfers but also among the wider community.

"It is a shared responsibility to look after our communities and this includes our non-human residents as well," explains David. "Often golf courses are the largest tracts of private land in a suburb and as such they can provide vital habitat and corridors for all forms of wildlife."

"While we are focusing on koala's with this project, you can translate what we are doing to



The Koalas on the Green project involves planting food and habitat trees in out of play areas on the golf course that will eventually provide sanctuaries, safe havens and food resources for urban koala populations

other species as well. My advice to golf clubs would be to take a look at the wildlife in your surrounding area as you may discover that there is a unique species that you may be able to focus a similar project on. For instance, you may have sugar gliders or black cockatoos in your area.

"By focusing on a particular species, be it the koala for instance, it helps to create community focus. The clearer you can be with your message the easier it will be to inspire surrounding residents to become involved. Social media is also a powerful tool and it can be used to engage your community. They can report sightings of animals, posting images and locations on the golf course online, progress of the project and any future group planting events."



After being rescued from a nearby property last year, Charles the koala was nursed back to health and released at Arundel Hills



For Arundel Hills course superintendent and ASTMA member Brad Gundry, the programme has been nothing but positive for the club: "The Koalas on the Green programme is an excellent initiative that Arundel Hills is very happy and proud to be a part of. The initial response from our members was a very positive one as they share the same care for the koalas here as we do. As of this point there has been zero interference with the day-to-day running of the course."

"We have an amazing member by the name of Michelle Brown who cares for sick and injured wildlife here at the club who has been extremely helpful in showing people involved in the programme where the best places are for planting to take place. All in all the programme so far has been fantastic and hopefully the club and Koalas on the Green see some great results from it."

BECOME INVOLVED

Since being in contact with David, we have been brainstorming how to get more golf courses on board, looking into funding options, utilising community groups and getting members involved. We already have a local Gold Coast course that has approached us to look at revegetating out of play areas to provide habitat and food sources for local fauna, as well as provide a facility for wildlife carers to harvest leaves, flowers and fruit for animals in their care. We are also looking at running programmes on golf courses in bushfire affected areas.

If you would like to know more about the Koalas on the Green initiative, contact myself (kate@envirogolf.com.au) or David through the Koalas on the Green website (www.koalasonthegreen.com) or Facebook page (www.facebook.com/koalasonthegreen).

The Forster course comprises seven par 3s, 10 par 4s and one par 5, making up a par of 66. Greens are relatively small and feature some interesting shapes and slopes which can make putting a challenge. Pictured is the 7th



Forster Tuncurry GC, NSW

Forster Tuncurry Golf Club on the NSW Mid-North Coast is unique in that it boasts two 18-hole courses on two separate sites. Arriving from past roles at Royal Canberra and The Australian, since March 2018 the Forster course has been home to first-time superintendent Peter Blain.

Superintendent: Peter Blain (32).

Family: Wife Katrina, baby on the way November.

Years as a superintendent: Two years, six months.

Association involvement: ASTMA.

Turf management career: Twin Creeks Golf and Country Club, NSW (apprentice), The Australian Golf Club, NSW (foreman), Royal Canberra Golf Club, ACT (foreman), Forster Tuncurry Golf Club, NSW (superintendent since March 2018).

Qualifications: Certificate III Horticulture Sports Turf.

Major hobbies/past-times: Play golf off a 5 handicap but not as often as I should. Trainer for the local Forster Tuncurry Hawks footy team.

Where in Australia is Forster Tuncurry GC?

Forster is situated on the NSW Mid-North Coast, about 3.5 hours north of Sydney. Forster is known for its beautiful waterways

and is one of Australia's largest producers of oysters. It is also a very popular retirement area and great holiday destination.

Tell us a bit about your background and how you started out in the turf industry...

I grew up in western Sydney and was a keen golfer during my school days and always enjoyed being out on the course. I loved playing golf but was never going to be good enough to make a living out of it. So when the opportunity of an apprenticeship came up at Twin Creeks Golf and Country Club I jumped at it. I completed the apprenticeship through Richmond TAFE before moving into Sydney.

Who were some of your early mentors and what did your early postings teach you about the industry and turf management?

I was lucky enough to have two superintendents during my apprenticeship at Twin Creeks. When I started out there the superintendent was Phil Beal, who would move on to The

Australian Golf Club, and in my third year Brendan Hansard (now at Kew Country Club) took over as superintendent. I give these two guys a lot of credit for the greenkeeper I am today and still enjoy catching up with them, even if it is not as often as I would like. When I made the move to Royal Canberra, the superintendent at the time was Ben Grylewicz who had some differing methods from what I was previously used to. I have found that I have been using a combination of the methods I learnt from all three of these mentors now that I am in my first superintendent role.

You spent a number of years at The Australian, one of the most exclusive clubs in the country. What did your time there teach you and how did that help you moving into your first superintendent posting?

Working on the crew at The Australian was a great experience and I loved my time there. It was my first experience of working with a large crew which can be hard to manage

through day-to-day activities. I feel working in that environment had a huge input into my communication skills and my organisational skills. I feel that the skills I learnt at The Australian are what I use today to organise my staff and communicate what tasks we need to achieve on the course.

How did the Forster job come up and why the move to a regional course?

The move from Royal Canberra to Forster was certainly a lifestyle change for myself and the family. My wife had finished university in Canberra and had a job opportunity up here. Forster Tuncurry Golf Club was going through some staff changes at the time and the superintendent role came up. Being a regional course appealed to me as a first-time superintendent. I've been really enjoying the opportunity the club has given me and will continue to do so.

How have you settled into your first superintendent role and how big was the shift up into such a role? Any advice to others making a similar move up the career ladder?

I now feel quite settled in my role as superintendent coming up to my third summer. I've certainly had some difficult times through the first two years, dealing with some extreme weather conditions and more recently issues brought about by COVID-19. The biggest adjustment for me I think was probably the mindset you have taking on the leading role. I find myself constantly thinking about the course at any time of the day outside of work hours and on weekends which is something I haven't had to deal with in the past. The best advice I would give is to surround yourself with team members you can trust, especially your senior crew. This will reduce some of the stress that comes with the top job. I also think it is important to communicate with people throughout the industry; everyone has issues on the course at some point and we don't have to go it alone.

Give us an overview of Forster Tuncurry GC and some of its unique characteristics...

The Forster course is an interesting one and comprises seven par 3s, 10 par 4s and one par 5, making up a par of 66. The greens are relatively small but do have some interesting shapes and slopes which can make putting a challenge. The course backs onto One Mile Beach as you go around the front nine



The Forster crew (from left) Brad Dobbie, Troy Blackhurst, Bobby Currey, superintendent Peter Blain, Ben Wrigley, Corey Orchard and Cody Harland

and has waterways that pass through several holes as you cross over onto the back nine. It is a fun and challenging course to play for members and guests.

Forster Tuncurry GC is unique in that it has two courses on two separate sites. Talk us through how that works from a superintendent/course maintenance perspective and how you work in with the Tuncurry crew? The two courses at Forster Tuncurry GC are separated by about 7km and are on either side of Wallis Lake (Forster on the southern side and Tuncurry to the north). The two golf courses are very different, whether it's to do with the soils and turf and even sometimes the weather conditions! Tuncurry is a sand-based course with couchgrass tees, fairways and roughs, while Forster is a clay-based course with kikuyu tees, fairways and roughs. Both of the courses have an A1/A4 bentgrass mix on the greens.

Mark Spraggs is superintendent at the Tuncurry course and arrived there in June 2019

after nearly six years as superintendent at Club Taree (see *ATM Regional Profile Volume 18.4 – July-August 2016 - Ed*). Mark and I work closely together, with regular communication over the phone as well as a weekly meeting to discuss what projects and issues we have upcoming on course. We operate separate budgets for each course which we are responsible for, however, there have been times where we have shared some products between the courses.

The staff structure between the two courses is almost identical, with five greenkeepers on each side and a mechanic. We have the ability to share staff when there are big projects or golf competitions on. This comes in particularly handy around green renovations time. The machinery on both courses is in good condition and well looked after by our two mechanics. We do share some of our equipment, especially the Toro ProCore and the Kubota excavator. The ability to share some of the more expensive equipment is definitely helpful for the club financially.



Forster recorded no rain from June 2019 to January 2020 but since February has received more than 1100mm. Pictured is the 18th green

AT A GLANCE – FORSTER TUNCURRY GOLF CLUB, NSW (FORSTER COURSE)

The 4th green on the Forster course



Course specs: Kikuyu tees, fairways and roughs; A1/A4 bentgrass mix on greens. The course comprises seven par 3s, 10 par 4s and one par 5 making a par of 66. 4868m.

Members/rounds: 1416 golfing members, rounds exceed 28,000pa.

Major tournaments/events held during the year: Club championships and members championship days. JNJC Newton Shield. Corporate days throughout the year.

Staff structure: Peter Blain (superintendent), Bobby Currey (assistant), Brad Dobbie (greenkeeper), Ben Wrigley (3rd year apprentice), Cody Harland (1st year apprentice), Corey Orchard (casual) and Troy Blackhurst (mechanic).

Climate/rainfall: Our average is 1200mm. In 2019 we recorded just 518mm, but by end of July 2020 we are already at 1086mm.

Terrain/soil types: The Forster course is fairly flat and is situated between two headlands, with the 5th green literally a pitching wedge from One Mile Beach. Some areas on the course are prone to flooding. We have a predominately clay base with some rock deposits around the course. Our greens are push up style with some sand added.

Water sources/irrigation system: We have two dams on course which supply all of our overhead irrigation needs. We rely on town water for our hand-watering. The irrigation system comprises two variable speed pumps which we introduced last winter. We are currently going through an upgrade to our system which is run using the Galcon control programme. We only have irrigation on our greens and tees, with 8000 Series Rain Bird heads on greens and Hunter heads on tees.

Cutting heights: Greens 3.5mm, tees 13mm, fairways 13mm, roughs and surrounds 60mm.

Renovations: Greens renovations are done twice a year in autumn and spring. We use an 8mm hollow tine at 2.5-inch spacings using our Toro ProCore. After removing all of the cores from the greens we give them a quick

roll to repair the surface. I generally apply a soil amendment and gypsum at this time depending on our previous soil test results. Once the amendments are down, we start topdressing using around 30 tonnes of locally sourced coarse sand. This is rubbed in with drag mats after a two hour drying time if possible. Depending on the weather, I like to irrigate the greens after dragging the sand in to help reduce the stress the plant is under.

Two days after the renovation, we apply a turf starter fertiliser which can change depending on the temperature at the time of renovation. This is followed by a second topdress of about 20 tonnes. I find doing the topdress in two stages helps the sand get into the core holes and reduces any smothering from the sand. I like to increase my fungicides around renovation time as well and I will usually apply a pythium fungicide the week before and after to keep my soil profile as clean as possible through this high stress period.

Major disease pressures and how you combat them: Dollar spot is the most prolific disease we see at Forster. There are many fungicides that we can use to treat it, however, the frequency in which we see the dollar spot patches on our greens is what makes it such a problem. I have found over the last three winters that we are spraying for dollar spot year round, sometimes on a fortnightly

basis. Pythium is always something to be on the lookout for on the golf course and is the disease that puts the most financial pressure on my budget. I run with a three-weekly preventative programme that tightens into fortnightly through the summer months.

Nutrition management: When starting out with my nutrition programme here, I relied heavily on liquid fertilisers which I found to be cheaper and quicker to apply. The liquids also gave me the freedom to mix my own brews so I could control the chemical makeup of my applications. Over the past year I have moved more towards granular fertilisers which provide a slower release and allows me to better manage growth patterns. I have been using more of the organic based fertilisers which has helped build up soil chemistry.

I also undertake regular soil testing throughout the year, especially leading towards renovation time. I also go quite heavily throughout the year with gypsum products to help with some salt issues we have given our coastal location.



Last winter Forster installed a new pump system as part of an ongoing irrigation upgrade



Forster's tees, fairways and rough are kikuyu

Any special environmental considerations that you have to incorporate into the management of the course? We have a waterway that stretches through most of the holes on the back nine of the Forster course. This waterway is a sensitive area as it does eventually lead into nearby Wallis Lake. We are well aware of the impact our maintenance schedules can have on this waterway and the marine life that lives in it. We are permitted to trim and clean out the waterway throughout the year for reasons such as playability and aesthetic purposes. However, the council has requested we leave areas around 20m in length throughout the waterway as a natural buffering system for the water supply. This can become a contentious issue with some of the members when they see some of the creek cleaned out while other areas look untidy.

Outline any major course improvement works recently completed or in the pipeline... We are currently undertaking an upgrade to our irrigation system on the Forster course. This is a project that has been long overdue and is transforming the way we maintain the course. When I arrived at Forster we were irrigating with a single pump and ball valve method. Each green had a valve which we would manually open depending on how much water we needed. Watering greens took most of the morning to complete.

Over the past year we have managed to upgrade our pump shed, adding two new pumps to our system. We have also been able to implement solenoids into our irrigation system, allowing us to control our irrigation through computer programming. This has allowed us to start watering overnight as well as giving us greater control on the amount of water going on our greens. Moving forward, we are aiming to introduce fairway watering around the course. We are currently planning a staged approach, aiming to complete as many as four fairways a year. This will give us great opportunities to improve the facility.

Water is obviously a critical issue for any golf course. How is Forster Tuncurry GC faring in the water management stakes?

Both our irrigation dams are currently at capacity as we enter spring. The club undertook a clean out of our backup irrigation dam after the drought last summer, allowing us to almost double our water-holding capacity. We have plans underway to dredge our main irrigation dam which will increase our storages even more. This will help to sustain our course into the future.



Among some of the small projects undertaken in recent times include bunker refurbishment (above is the new greenside trap on the par three 11th) and tee reconstruction (right is work on the 8th tee)

The irrigation dams on our course rely heavily on runoff from the surrounding roads and properties. We catch all runoff from the golf club roof as well as the RSL club roof which backs on to the back nine holes. The runoff from these does provide a large amount of water during rain events.

The weather and climate is always a great leveller for a superintendent. How has Mother Nature treated the course in recent times? The last year has been very difficult as I'm sure most greenkeepers in NSW will attest to. In many parts of the Mid-North Coast we recorded the worst drought figures on record in 2019/20. We didn't record any rainfall between June 2019 and January 2020 which as you can imagine put a great strain on our water supply. The council implemented Level 5 water restrictions which restricted us from doing any hand-watering on the course. When the rain finally came, we were under the 1m mark in our irrigation dam!

We finally got some rain in February 2020 which was a welcome relief after what was a brutal period over summer. When it rains it pours and in a one-week period between 6-13 February we recorded just over 400mm of rain. The rain has continued to fall for most of 2020 to date and at the end of July our tally sits around 1100mm. This has created significant disease pressures for us and will be our main focus leading into the next growing season.

The one product I couldn't manage my course without is... Not so much a product, but a piece of equipment – our Toro 700L Multi Pro sprayer. When I arrived at Forster Tuncurry



GC we were sharing a sprayer between the two golf courses. We were lucky enough last year to purchase a second sprayer so we can have a Multi Pro at each site. This has provided us a lot more freedom with our spraying programme, has allowed us to do more spray applications and less tank mixing with various products to save time.

What have you got in your shed and what's your favourite piece of kit? Toro Greensmaster 3320 Tri-Flex, Reelmaster 3100D, Reelmaster 7000D, five Toro Workman utilities, Multi Pro 700L sprayer, Toro ProCore, Jacobsen R311T rough mower, Kubota MX5100D front-end loader and Kubota 2.5 tonne excavator. The excavator is a valuable piece of equipment. We have quite heavy clay soils here at Forster and having the excavator has allowed us to complete a lot more irrigation and drainage projects in-house. We have also been undertaking some construction work over the past year and the excavator has allowed us to complete two new tees and two new bunker extensions. Our next major purchase will be an upgrade to one of our MDX Workmans in October. As far as a wish list goes, I would like the upgrade to be to an HDX workman. They are a bigger unit with a larger tray and it would also allow us to look at the Toro ProPass spreader in the future.



Members Neville Fox and Dirk Diepeveen are among a small group of volunteers that help Blain with various jobs around the course, including repairing fences and safety screens and tending to gardens

Do you have any interesting pieces of equipment or machinery in the shed? We have a makeshift greens handwatering tank which we required last year while on Level 5 water restrictions. The tank is a 240L wheelie bin attached to a trailer with a one-way petrol pump. The tank puts out the full 240L in under two minutes. It got us out of trouble through the drought but it is a very slow way to water greens.

Do you use volunteers to assist with jobs around the course? We have a small volunteer group that helps us regularly in the gardens at Forster. Percy Drury, Bruce Fischer and Ivan Bradshaw do most of the gardening around the course and the clubhouse. We have another two members – Neville Fox and Dirk Diepeveen – that volunteer their time to help us repair all of the fences around the course, as well as the safety screens at some of the tees. A volunteer workforce is a huge help on regional courses that have limited staff. The work these members do for us allows the crew to concentrate on the rest of the golf course.

Are expectations of course presentation and conditioning any less than that placed on your metropolitan counterparts? I don't think the expectations of the golf course drop from course to course or from metro to regional. I think there is more leniency towards how much work can be achieved through certain time periods with smaller staff or limitations of equipment. But the condition of playing surfaces are definitely expected to be high quality.

How important are the relationships you have with other course supers/trade reps? I have a great group of reps up in the northern NSW area. Being regional, you don't see as many greenkeepers or superintendents getting around your course, but the sales reps still come through on a regular basis. The guys up



The Forster greens are a mix of A1 and A4 bentgrass. Dollar spot has been a constant challenge in recent times

here are really easy to get along with and are only too happy to share their knowledge.

Do you think regional superintendents have a better work-life balance than their metro counterparts? The main difference I have found moving out of the city is the time taken commuting. I live five minutes from the course which allows me to get to work if there are any emergencies which in turn reduces the stress of the job. Forster is a fairly relaxed town, so outside of work it is very easy to wind down at the end of the day.

Best advice you have received about being a superintendent/greenkeeper and who gave it to you? The best advice came from my first super Phil Beal which was to always document or keep a spreadsheet of all transactions you make. As a superintendent it is your responsibility to do all of the purchasing that you require or your budget allows. It is the club's money that you are spending and it is important to keep your own records of where it is spent.

What do you think is the most challenging aspect of a superintendent's role today? 2020 has been a year like no other and I have found the most challenging aspect has been managing my staff. With all of the external pressures that COVID-19 has brought for everyone, I have found that there has been a

lot more mental health challenges for me and my crew. As a team we have been actively checking in and talking to each other through these difficult times. I believe this is helping us become a stronger team which is making Forster Tuncurry a better place to work.

What have you worked on personally in recent years to improve your skills as a superintendent? I have attended a number of education days and seminars over the last couple of years. It can be difficult getting to some of the days being from a regional area. The NSWGCSA has been actively trying to expand these educational days around the state and I look forward to attending more in the future.

Favourite spot on your course? The 5th tee bridge. When crossing the bridge after your tee shot, you get a clear view of One Mile Beach. I love getting down to the beach and the view in this area is great. The waves in the background can be heard across the course depending on the swell.

What gives you the most job satisfaction? There is nothing more satisfying than having a beer with the crew after a long hard week of work. I find the week after green renovations can be the best time to enjoy as a team as everyone has worked hard to get the greens ready for another season.

Most pleasing/rewarding moment during your time as Forster Tuncurry GC superintendent? Friday afternoon after the course has had a full mow and is looking clean and tidy across all surfaces. I find the most pleasing times are when you can leave the course happily knowing it is in the best shape it can be. 🌳



Tree planting undertaken in the rough on the 5th hole

Don't gamble with mite resistance

ROTATE

ROTATE

ROTATE

1 : 1

The best way to start your resistance management is spraying 1 for 1, if more mite treatments are required after an application of Thumper, then Waldo should be your next treatment, then Thumper, then Waldo etc.

Rotation is key



Thumper Insecticide

GROUP 6 INSECTICIDE



Waldo Miticide

GROUP 12A INSECTICIDE

The key to any insect control program is the rotation of chemistry between Mode of Action groups.

For many years Thumper has set the industry benchmark for mite control.

Knowing the reliance turf managers have on Thumper, Turf Culture has launched another miticide with a different Mode of Action to ensure turf managers have rotation options.

Newly launched Waldo Miticide gives turf managers a Mode of Action Group 12A, making it the ideal rotation partner with Thumper.

Mite Management Strategy

- Use miticides with different modes of action in rotation
- Spray coverage and water volumes are essential for good mite control.
- Avoid overuse of a single miticide.

Principles of Resistance Management

Insecticide or acaricide resistance management strategies seek to minimise the selection for resistance to any one type of insecticide or acaricide. This requires an understanding of insecticides as they are grouped according to similarity of Mode of Action (MoA) in controlling insects and mites.

In practice, sequences or rotations of compounds from different MoA groups provide an effective approach to resistance management.

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TURF
culture

NEW GROUNDMASTER 3000 SERIES KEEPS TORO OUT IN FRONT

The new Toro Groundmaster 3000 Series out-front mower offers increased productivity, enhanced durability, added comfort and ease of maintenance



ASTMA Platinum Partner Toro Australia has launched its all-new out-front rotary mower in the Australian market – the Groundmaster 3000 Series.

The mowers feature more powerful engines as well as enhanced operator comfort and manoeuvrability, user-friendly operation and simplified maintenance. Significant performance enhancements also contribute to the machine's unique combination of productivity, durability and value.

The Groundmaster 3000 Series mowers are built to last and have powerful 18.5kW (24.7hp) and 27.9kW (37.4hp) Yanmar diesel engines. The new range features large 152cm (60") and 183cm (72") side-discharge, rear-discharge and fine cut flail cutting decks, along with fast ground speeds up to 24.14kph for moving between job sites efficiently.

Fitted with Toro's CrossTrax all-wheel-drive system, the Groundmaster 3000 handles well in slippery conditions. In normal operating conditions, the CrossTrax system sends hydraulic flow to the opposite wheel motor, providing consistent 4WD operation in challenging conditions. If a front wheel should slip, the hydraulic flow is directed to the same side rear wheel motor to assist in traction on the slipping side of the machine.

"We are super excited to launch the new mower range as it is something our customers have been asking us for a while," says Toro Australia's product marketing manager – equipment Brian Goodridge. "The out-front mower design focuses on a better user experience, from getting on and off, adjustable

suspension seats and tilt steering wheels to fingertip controls on the armrest console, which makes it easy for the user to react to changing conditions. A more comfortable operator is a more productive operator."

An optional all-season cab enclosure can help reduce operator fatigue and allows for all-day and multi-season use. The onboard InfoCenter displays service reminders, alerts and diagnostic information. The new chassis provides increased ground clearance (19.8cm or 7.8"), making it easy for the mower to climb curbs and manoeuvre over other obstacles.

Several strong seven-gauge steel deck cutting units are available for these Groundmaster machines. Turf managers can choose between the robust Turbo Force deck with maintenance-free spindles, or the Groundmaster deck with side bumpers and rugged cast iron spindles with dual-tapered roller bearings, thick 0.6mm (.25-inch) heat-treated blades and a front bullnose bumper to provide maximum protection. All of the cutting decks also easily tip up into a service position for quick routine maintenance.

The new Groundmaster 3000 Series out-front mowers are available through Toro Commercial dealers now. For more information visit www.toro.com.au.

BAYER UPDATES TURF ID APP

ASTMA Silver Partner Bayer has recently updated its Turf ID Guide app to include the company's latest turf products Indemnify turf nematocide and Signature Xtra Stressgard systemic turf fungicide.

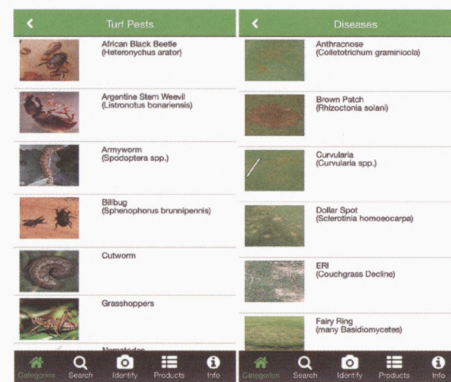


The Turf ID Guide app provides practical information to assist professional turf managers identify common weeds, turf pests and diseases. The app illustrates 14 common weeds, seven insect pests and 14 turf diseases, with each high-resolution photograph showing a magnified view for easy identification. In addition, each photograph is captioned with both the common name and botanical name and briefly describes three categories – situation, occurrence and treatment recommendations.

SDS and product labels can also be downloaded for each Bayer turf product and the app allows the user to email a photograph of a disease, pest or weed to Bayer's senior market development specialist Jyri Kaapro for identification purposes and product recommendations.

"Since its launch in 2012, the Turf ID Guide app has been downloaded more than 14,000 times and has had several updates, resulting in 40,000 total updates downloaded," says Bayer's market manager ANZ for turf and vegetation management James Royal. "It has proven to be an invaluable tool for turf managers and golf superintendents and allows quick identification at a glance, as well as advising which product solution is best."

The Bayer Turf ID Guide app is available for download from the App Store and Google Play.



The Bayer Turf ID Guide app has been updated

POGO APPOINTS LIVING TURF AS AUSTRALIAN AGENT



The Pogo Pro+ is now available in Australia through Living Turf

ASTMA Silver Partner Living Turf has added to its range of scientific turf management products and services after Pogo appointed the company as its exclusive agent in Australia. Pogo Pro+ is a world-renowned scientific turf measuring probe and was recently appointed by the PGA as the preferred measure of playing surface condition for affiliated tournament golf events.

Pogo Pro+ is a portable, wireless, durable and easy-to-use tool that collects precise data including moisture, salinity, canopy and soil temperature. It is based on a patented soil sensor called HydraProbe and is accurate in all soils without calibration.

The Pogo system also offers the Pogo TurfPro Cloud as a mapping platform that automatically analyses data and presents it visually with every upload from the Pogo smartphone app. Turf managers can see variations of moisture, salinity, temperature, ball speed, firmness and more across every zone of their facility.

Elsewhere, Living Turf has also added two new products to its wetting agent and turf pigment ranges – Wetout surfactant and MP Verdant pigment which joins the MatchPlay portfolio range. MP Verdant is a pigment for turf which;

- Enhances and extends the aesthetic appearance of turf;
- Develops into a dark natural green colour;
- Increases light absorption due to its similarity to chlorophyll;
- Increases soil and surface temperatures during cool conditions; and
- Assists with turf quality during summer through increased reflectance.

Wetout is a new-generation surfactant manufactured by SST Australia. In turf situations, spray droplet coverage and target plant contact is critical for product

performance, with Wetout boasting a unique formulation of vegetable-based surfactants to help enhance many spray treatments for turf including miticides, foliar fertilisers, pigments and growth regulators.

For more information on any of the above products, contact your local Living Turf representative or call 1300 556 116.

GRADEN MANUFACTURING, SERVICE AND PARTS

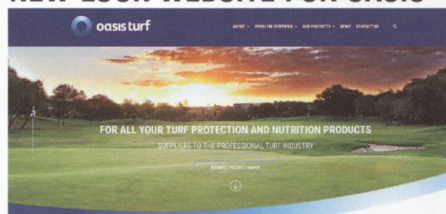
GRADEN

As many in the sports turf industry know, Australian machinery company Graden Industries ceased trading in mid-2019. Despite that, the Graden range is continuing to be manufactured and supported by Turf Engineering in Wedderburn, Victoria.

Turf Engineering has been manufacturing turf equipment for the last 25 years for both domestic and international markets. As well as manufacturing a range of Graden verticutters (models GS04, CS1, SW04 and GBS1200), Turf Engineering can also assist with any servicing, repairs and spare parts for existing Graden machinery.

For more information, contact Geoff Burnside by email turf.engineering@bigpond.com or call (03) 5494 3606.

NEW-LOOK WEBSITE FOR OASIS



Melbourne-based Oasis Turf has unveiled a new website and encourages its Victorian and Tasmanian clients to view it when next looking to purchase product or find information on pests, diseases, weeds, seed and fertilisers. The new website features a Problem Identifier page where a range of information is presented on 40 common pests, diseases and weeds. Each contains a photo, general information as well as treatment recommendations. **Visit the new Oasis Turf website at www.oasisturf.com.au.**

GREEN OPTIONS EXPANDS WITH PURCHASE OF PITCHCRAFT, STM

Green Options has purchased Pitchcraft Maintenance (Victoria) and Stadium Turf Management (ACT), with both entities becoming part of

the Green Options maintenance divisions in Victoria and the ACT. In an agreement designed to propel both Green Options and Pitchcraft Construction towards their respective ambitions within the premium sports turf industry, both companies are excited by the prospects that lie ahead.

The deal will allow the owners of Pitchcraft and STM (Richard Winter and Mathew Woolfe) to focus on the developing premium sports field construction sector under the name Pitchcraft, while at the same allowing Green Options to strengthen its grounds maintenance business and national footprint.

Green Options general manager Dane Thatcher says the purchase “reinforces Green Options’ standing across Australia as the leading provider in sports turf management.” Likewise, Pitchcraft managing director Winter is excited to “broaden the capacity of Pitchcraft major projects... on the back on many recent achievements.”

SILVAN ADDS NEW SPRAYERS TO BACKPACK RANGE



The new Silvan sprayer range includes the 12L rechargeable backpack sprayer (left) and a 15L backpack sprayer

Spraying specialist Silvan has added two new backpack sprayers to its extensive range just in time for spring. The new models include a 15L backpack sprayer (KN15D-2) and 12L rechargeable backpack sprayer (WP12-1).

The large capacity 15L sprayer, with its UV-stabilised capacity poly tank, features a piston pump for either left or right hand operation, a 500mm spray gun with stainless steel lance, large anti-spill lid with strainer basket for fast filling and thick padded shoulder straps for increased user comfort.

Among its benefits are an ergonomic hand grip for smooth and easy operation. It is supplied with flat fan and adjustable nozzle for distance or cone spraying for greater coverage and precision. The lid includes an in-built handle for carrying when empty and clips for storing the spray lance, which can also be clipped to the tank.

The 12L capacity unit is designed for spot spraying of large and small properties. The included spray lance is lightweight and features a lock-on trigger device for reducing finger strain, with full-length lance for convenient reach. The long reach spray gun comes with an adjustable nozzle to control the spray pattern from fine conical mist for excellent leaf coverage to pencil stream for directed spraying.

The sprayer also features a combination of pump with rechargeable battery to provide up to two hours of continuous spraying of weeds. The diaphragm pump with on-demand pressure switch starts the pump when pressure drops below 30-35psi and stops it at 35-40psi.

Other features and benefits include indicator lights for the battery and the ability to show how much charge is left, a tank to match the body's contours with adjustable padded straps and back rest for user comfort and to reduce strain. The 15L backpack sprayer costs \$93 and the 12L rechargeable backpack sprayer \$189.

To find your local dealer, visit www.silvan.com.au or call 1300 SILVAN (1300 745 826).

HG TURF STITCHES UP NEW PARTNERSHIP

HG Turf Group has signed an exclusive partnership with UK-based SISGrass which will see the company's patented hybrid grass system arriving in Australia this October. The new partnership offers the Australian sports turf industry a new hybrid grass system – stitched hybrid grass by SISGrass – which injects artificial grass fibres into a playing surface.

SISGrass is stitched in a 20mm x 20mm square pattern, with 20mm of fibre above the surface and 180mm of fibre below the surface. The hybrid surface, which comprises five per cent artificial grass and 95 per cent natural grass, increases playing hours of the surface by up to three times. SISGrass is designed for long-term performance, with the UV-stable and wear-resistant polyethylene fibres giving a life expectancy of 10-plus years. The fibres can also be recycled, making SISGrass a sustainable choice.

The SISGrass machine is powered by electricity and guided by laser for greater accuracy during installation. One machine can stitch a full-size soccer pitch in seven days.

A smaller version of the stitching machine is also available for goal boxes, golf tees, tennis courts and cricket pitches.

SISGrass was launched in 2015 and has been installed in over 100 pitches, including 50 stadium pitches, worldwide. SISGrass has been used with cool-season grass in venues that host the English Premier League, FIFA World Cup, UEFA Champions League and Rugby World Cup. SISGrass has also been used with warm-season grass in the AFC Asia Cup. SISGrass is also widely used in community sport.

Victorian-headquartered HG Turf Group has been supplying the market with hybrid grass for more than 20 years and the introduction of SISGrass expands its hybrid product range which already includes HERO and XtraGrass.

"We are very excited to partner with SISGrass and offer their patented technology in Australia," says HG Turf Group managing director Hamish Sutherland. "Our collaboration includes the purchase of a SISGrass stitching machine which will guarantee local supply and support of this international technology. SISGrass completes our hybrid grass portfolio

INDUSTRY APPOINTMENTS



SYNGENTA SNARES NEW REP FREWIN

ASTMA Gold Partner Syngenta announced in August the appointment of **Peter Frewin**

(pictured) as the company's new territory sales manager for Victoria, South Australia and Tasmania. Frewin started his new role on 17 August.

Frewin is an experienced and well-known face in golf, working in the industry since 1981 across many clubs including 21 years at Barwon Heads Golf Club. He has contributed significantly to the turf industry through his roles as president of the VGCSA (1993-1998), committee member for the TGAA in Victoria (1995-1997) and president of the AGCSA (1997-2001). Frewin also received the AGCSA Distinguish Service Award in 2009.

Since 2009, Frewin has worked in the corporate sector, spending time at Globe Growing Solutions, the AGCSA (now the ASTMA), Rain Bird and most recently at FMC as commercial head of specialty products.

"We are very pleased to have someone with Peter's experience and capability joining the Turf & Landscape team," says Paul Jackson, business manager for the Turf & Landscape portfolio at Syngenta. "Peter's knowledge of all things turf and landscape

is exceptional. I believe Peter will be a great resource, not just for Syngenta, but for all turf and landscape managers throughout Victoria, South Australia and Tasmania." Frewin can be contacted on 0428 274 069 or by email peter.frewin@syngenta.com.



O'MALLEY, LOOBY JOIN LIVING TURF

ASTMA Silver Partner Living Turf has bolstered its technical sales team with the appointments of **Martin O'Malley** (NSW, pictured top) and **Paul Looby** (far north Queensland, pictured left).



O'Malley will join Living Turf to provide expert advice,

customer support and after-sales service on the Rain Bird line of irrigation products. O'Malley has worked across a number of turf industry sectors, including time at Muirfield, The Lakes and Riverside Oaks golf clubs. His crowning achievement, however, was as construction superintendent at Lynwood Golf Club and taking the reins of the NSWGCSA. For the past four years O'Malley has worked as a technical irrigation specialist. O'Malley can be contacted on 0499 011 911 or by email momalley@livingturf.com.

Turf ecology specialist Looby joins Living Turf's team in far north Queensland as a

technical service representative. A highly regarded turf scientist, Looby will work alongside Living Turf's recently appointed northern Queensland sales manager Chris Johnstone.

Originally from NSW, Looby is an ag science graduate who has a long pedigree in turf. For the past four years he has resided in Cairns where he founded Botanic Research, a company that delivers scientific trial work for Australia's leading plant protection companies. The appointment is timely, as Living Turf recently launched to the north Queensland market with a successful seminar at the Cowboys Stadium in Townsville. Looby can be contacted on 0404 437 320 or by email plooby@livingturf.com.



HAWKEY HOOKS UP WITH GLENMAC

Former Sanctuary Lakes and Neanger Park course superintendent **Brett Hawkey**

(pictured) has been appointed to a golf and sports turf sales role with Victorian John Deere distributor Glenmac. Hawkey arrives at the company after spending the past few years as a territory manager for Greenpro and will be based out of Glenmac's Knoxfield branch. Hawkey can be contacted on 0447 500 064 or email brett.hawkey@glenmac.com.au.



SISGrass is teaming up with HG Sports Turf in Australia

and our partnership with SISGrass is a significant milestone for HG Turf Group."

Adds SISGrass managing director Ivo Lamo: "We're delighted to partner with HG Turf Group. Our SISGrass technology has been installed all over the world and working with this experienced partner presents an exciting opportunity to provide quality hybrid surfaces to a new market in Australia."

For further information contact HG Turf Group business development manager Erik Kinlon ekinlon@hgturfgroup.com.au.

KILL WEEDS WITH A CONSCIENCE

During the months of August to November, Organic Crop Protectants (OCP) is giving away some prizes to users of its Slasher organic weedkiller product. Turf and amenity horticulture managers who purchase a 20L drum will be able to enter a competition to win a Solo 417 battery-powered backpack sprayer valued at \$360.

Slasher is an organic weedkiller developed for Certified Organic farmers, but in recent times, due to a higher level of public scrutiny regarding the use of certain herbicides, it has found its way into amenity weed control programmes. Because it contains mostly modified canola oil and nonanoic acid (pelargonic acid) from safflower, Slasher is very easily degraded by soil bacteria and fungi with a half-life of 24 hours.

Slasher's mode of action is a contact desiccant, so as soon as the spray contacts the plant it causes irreversible effects on the epidermal layers of the vegetative parts of the plant, killing weeds in under an hour. Due to this mode of action, herbicide resistant weeds can be targeted. Slasher is most effective on smaller and more succulent weeds, so it is important to spray early in the weed cycle. It is also used effectively as a tank mix with other non-selective herbicides to increase the

speed and spectrum of kill on weeds that have developed lower sensitivity to certain herbicide groups.

For more on Slasher organic weedkiller and the spring giveaway, visit www.ocp.com.au.



Slasher is a contact desiccant organic weedkiller



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A NSW Government grant is enabling Byron Bay Golf Club to refurbish all its bunkers as well as undertake a number of other course improvement works

At the time of writing this, Queensland is nudging towards normality which is reflected with the increase in activity across most golf courses. Golf courses are open for play and clubhouses are operating under strict COVID-19 safety conditions.

As a committee, we are planning events assuming that the recovery will continue and as this edition was going to print we were planning for the 2020 Annual General Meeting to be held on Monday 31 August at Toowoomba Golf Club. We are extremely hopeful that this event is able to go ahead and have extended an invitation for all members to bring a friend along for free. The meeting will be held at noon and followed by an optional nine holes of golf. One lucky

member will win a night's accommodation at the InterContinental Sanctuary Cove Resort including breakfast for two and three lucky members will each take home a \$50 BWS voucher – just for showing up!

In other news, the team at Byron Bay Golf Club (superintendent **Shaun Cross**) have been extremely busy over the past few months with a number of golf course improvements being undertaken, all thanks to NSW Government Office of Sport funding that was successfully obtained late last year.

With most works being completed in-house, the funding has been stretched a long way and has resulted in significant improvements to the golf course, which will unfold over the next 18 months. All of the

club's 41 bunkers are planned to be 100 per cent refurbished with 32 to be lined with KustomBind and new sand from Southern Pacific Sands. This is a fantastic news story and you can read more about it and view the image gallery on the GCSAQ website.

We recently conducted a survey of our members and would like to thank the large number of members that took the time to complete it. There was valuable content within the answers that we will use as a committee to structure events and industry days moving forward. A number of members commented that they were interested in mental health support for their teams from the association. We are more than happy to support this and will be announcing how the committee will cover this in coming weeks.

We are looking forward to seeing our members not only at the AGM but at the GCSAQ Christmas Party which we hope to hold in Brisbane in December, obviously subject to COVID-19 safety rules. Stay safe.

PAUL MCLEAN
PRESIDENT, GCSAQ

COOMBES, TILLEY HEAD GCSAQ AWARD WINNERS

Headland Golf Club superintendent **Ben Tilley (CSTM)** and his RACV Royal Pines counterpart **Lincoln Coombes (CSTM)** were the big winners at the Queensland Golf Industry Awards ceremony held online in July.

Tilley received the GCSAQ's Industry Recognition Award for a career which has spanned nearly four decades. Tilley began his career back in 1983 at Darwin Golf Club and in the years since has amassed an impressive CV. He has been superintendent at Headland since 2007 and prior to that was assistant at Twin Waters Golf Club and superintendent at Beerwah Golf Club.

Tilley is a multiple award winner, collecting the 2000 AGCSA Claude Crockford Environment Award during his tenure at Beerwah, as well as the AGCSA Excellence in Golf Course Management Award in 2012 for his work at Headland. Tilley has also played a major role on the GCSAQ committee over the years, including a stint as president, and more recently was one of the original mentors on the ASTMA and Jacobsen-sponsored Future Turf Managers' Initiative.

After hosting the past seven Australian PGA Championship tournaments, during which the championship course was fully reconstructed across two years, Coombes received the GCSAQ's Superintendents Achievement Award, sponsored by Living Turf. Coombes, who arrived at RACV Royal Pines from Victoria in late 2011, headed a quality field of finalists that included **Glenn Gibson-Smith** (The Glades GC), **Dion Cope**

(Redland Bay GC) and **Kirk Heald** (Victoria Park GC).

"To be recognised in your chosen field is absolutely fantastic," says Coombes. "To my team, I certainly wouldn't be here without a great bunch of guys behind me. We have been through a lot together with the course rebuild and televised tournaments. They have put in a lot of work and I thank them very much."



RACV Royal Pines superintendent Lincoln Coombes received the GCSAQ's Superintendents Achievement Award

GCSAWA

The Perth metropolitan area has recorded another consistent winter, with 180mm of rain falling over June and July. We had 20 separate rain days but only two of them were over 15mm. With a lot of cloud cover we haven't experienced the cold mornings that bring frosts to some parts of the city.

Our thoughts go out to those in Victoria who are battling through some horrible conditions and circumstances. Western Australia has been very fortunate in regards to COVID-19. Almost all restrictions are lifted with golf and clubhouses operating as usual and crowds up to 30,000 allowed at Optus Stadium for the AFL. Golf numbers continue to exceed all expectations with member play, guests and public packing out the tee sheets. That has continued to flow down through the trades with machinery purchases continuing and chemical and fertiliser buying remaining steady or in some cases increasing.

Most courses are trying to squeeze all their honour board events into the next few months which is keeping us even busier. The GCSAWA committee is also working to fit in our yearly events before the busy spring and renovation times. In late July we had the Trade Challenge at Meadow Springs Golf and Country Club. Superintendent **Mike Healy** had the course in amazing condition for the 19 teams that entered.

With a few spectators added in, it was the most attended event hosted by the GCSAWA in my memory. We had guys travel from as far away as Kalgoorlie, Albany and Margaret River

STA ACT

And there we have it! We have reached August already... where has 2020 gone! From drought to floods, from bushfires to a global pandemic, hasn't it been a year to remember so far. Just like us down in this part of the world, I'd imagine everyone would be in major renovation swing or at least preparing for it. It's been quite a mild winter with a decent amount of rain falling across the board. Fingers crossed we get blessed with a little more moving towards our renovation period and beyond into summer.

Since I last reported, our STA ACT nominees for the ASTMA Graduate of the Year and STA Australia Graduate of the Year were announced. Congratulations to **Matt Stevens** (Catalina CC, Bateman's Bay) and **Luc Hill** (Stadium Turf, Canberra). These two gentlemen represented the territory well in



The victorious Living Turf team at the GCSAWA Trades Challenge comprised (from left) Darren Wilson (Wembley GC), Tyson Riley (Living Turf), Nigel Fitzpatrick (Lake Karrinyup CC) and Richie May (Cottesloe GC)

to participate in the day. Living Turf won the golf, with T-Quip and Toro Irrigation rounding out the places.

As this edition was going to print, the GCSAWA held its AGM at Joondalup Resort, incorporating the Living Turf/Rain Bird Cup golf event. At the AGM **Simon Bourne** (Cottesloe GC) stood down after three years as president. I was duly elected president for the next term with **Nick Kinley** (Hartfield CC) and **Dave Cassidy** (The Cut) coming onto the committee for the next term. **Tony McFadyean** (Nedlands GC) has been elevated to the role of treasurer. A big thanks goes to Simon for his time volunteering on the committee, especially over the past year where he had to juggle his association commitments with a full irrigation install and replacement of many greens at Cottesloe.

The day following the AGM, came the news that Simon had stepped down from his role at Cottesloe after 24 years at the club, including the past 13 as superintendent. In 2015 he was awarded the AGCSA Excellence in Golf Course Management Award, while a major revegetation and water saving programme also saw him awarded a WA Environmental Award. Cottesloe hosted three WA Opens under his reign, as well as a number of amateur championships. Simon served two separate stints on the GCSAWA committee including terms as treasurer and president. All at the GCSAWA wish him the best for the future and congratulate him on his achievements at Cottesloe.

SHANE BAKER PRESIDENT, GCSAWA



STA ACT Graduate of the Year Award nominees Matt Stevens (left) and Luc Hill

their interviews and are commended for their aspiring attitudes towards the turf industry.

Unfortunately, due to COVID-19, STA ACT was unable to hold both the Annual Golf Day and Annual Turf Seminar. The turf seminar also coincides with STA ACT's Annual General Meeting which will now be held at a date to be confirmed before the end of October. An STA

bowls and drinks evening is in the process of being organised for our members to get together and socialise in the wake of no golf day or turf seminar.

STA ACT have had few and far between committee meetings during COVID but the committee will remain as is under the guidance of STA ACT president **Brad Van Dam**.

STA ACT is continuing to remind members and industry associates to maintain social distancing in workplaces as well as looking out for your work colleagues. Our industry endures stress at the best of times, but by adding a global pandemic to it can multiply that stress ten-fold. Make sure you look after your mates and help each other through this tough year.

JIMMY CORRELL COMMITTEE, STA ACT

NSWGCSA

The NSWGCSA would like to start by congratulating **Angus Beasley** (Gunnedah GC/Scone GC) on receiving the 2020 ASTMA Graduate of the Year Award and **Anthony Mills** (The Lakes GC) on winning the 2020 ASTMA Excellence in Golf Course Management Award. Both these guys have done NSWGCSA proud and are very deserving winners.

The NSWGCSA has been continually meeting via the online meeting room through the COVID-19 period. The Board decision was made to not host any walk 'n' talks, assistant days or education days while the pandemic is still very much a threat. The Annual Ambrose Day scheduled for May was cancelled also.

As it currently stands the Board has decided that the only event for 2020 that may go ahead will be the Rube Walkerden Trophy and AGM to be held at The Lakes in

late November. The Board are in constant communication with management there and a final decision will be made closer to the date. Obviously, safety is paramount and for any reason at all the Board feel it is not right, the event will be cancelled.

The NSWGCSA is currently in the process of rebuilding its website. The Board has employed the services of a website designer that will also be assisting with the association's social media accounts to help promote our members and trade sponsors.

NSWGCSA in conjunction with the NSW Bowling Greenkeepers Association and an independent irrigation consultant have now completed the first draft letter to be submitted to Minister Pavey for consideration of a meeting to discuss a list of concerns around the recent water restrictions and exemptions. In the letter it states...

"Of greatest concern with the restrictions is the use of mandatory operating times when irrigating without considering key factors such as seasonal needs, crop requirements, irrigation methods and application rates. The use of mandatory operating times will, in many cases, lead to water being wasted due to the ineffectiveness of the application."

There will be more correspondence to come in regards to this issue and hopefully we can have clearer communication with all the authorities when it comes to water restrictions and conservation.

Hopefully everyone is staying safe during the uncertain times we are in; our thoughts are with Victoria and everyone is behind you.

NATHAN BRADBURY
PRESIDENT, NSWGCSA

TSTMA

Down here on the Apple Isle we are feeling the hurt that some of the other states are going through with the COVID-19 epidemic. That little stretch of water that separates us from mainland Australia has allowed us to get on with life a little easier than others, however, we are still all feeling the pain and 'in this together'.

For us that means we can finally have some turf industry gatherings which has allowed us to organise a training day aimed at apprentices mainly, but also very informative to all others in the industry in general. This event will be held at Invermay Bowls Club on Tuesday 8 September and is sponsored by our good friends Toro-Pellows.

As you can see by our new heading, we are now officially trading as the Tasmanian Sports Turf Managers Association (TSTMA).

With a considerable amount of work, **Gary Byard** (association treasurer) with his grit and determination finally got us there, so a big thanks to him for his time and effort in getting the turf industry in Tasmania to work together as one entity.

Another little victory of late has been with TAFE Tas. **Marcus Pamplin** (Blundstone Arena), **Craig Walker** (Devonport Country Club) and **Phil Hill** (Barnbougle) attended a meeting with TAFE Tas education manager **Rachel Holland** and teacher/assessor **Richard Lancaster** to discuss the lack of face-to-face training hours that are being delivered to our apprentices in Tasmania at the moment, compared to other states. With some factual evidence supplied by ASTMA events and education manager **Simone Staples**, we have negotiated a training plan moving forward that

is much more in line with other states, albeit still needing some significant improvements.

Our major conference which was to be held in August, for obvious reasons has had to be postponed and hopefully we will hold something more significant towards the end of October or early November once we can fly in some keynote speakers.

In closing, I must also thank all of the TSTMA committee and office bearers for the support that they are giving to our association in these difficult times; it does not go unnoticed. With our new direction and diversity of all things turf, it now allows us to become stronger and united as one! Take care and stay safe!

PHIL HILL
PRESIDENT, TSTMA

ON THE MOVE...

LIAM ASH: Appointed assistant superintendent Ryde-Parramatta GC, NSW,

DEAN HARDMAN: From assistant superintendent Killara GC, NSW to Indooroopilly GC, Qld.

GREG JAGER: From assistant superintendent RACV Royal Pines Resort, Qld to superintendent Nambucca Heads GC, NSW.

BRAD LOVELL: Resigned as superintendent Broome GC, WA.

GREG MARSHALL: Set to retire as superintendent of Cronulla GC, NSW in October.

ANDREW MOON: From The Lakes GC, NSW to assistant superintendent Dunheved GC, NSW.

AARON TAYLOR: From assistant superintendent The Lakes GC, NSW to superintendent Cronulla GC, NSW.

DAVE WARNAAR: Departed as superintendent at Warrnambool GC, Vic after eight years to become a truck driver for Boyles Livestock Transport.



Dave Warnaar



Greg Jager

It is an honour to assume the presidency of the Victorian Golf Course Superintendent's Association. Like many past VGCSA committee members have stated, it is an extremely enjoyable and enlightening experience being part of this committee. Not only do you have a say in the day-to-day running of the association, but you help shape the future direction and ensure the association remains relevant and connected to its members.

First, I must congratulate and thank **Barry Proctor** for his 11 years on committee, the last two as president. Barry served the association with a lot of pride and professionalism, with a little bit of dry humour thrown in for good measure. Also stepping down after seven years on the committee was **Steve Burchett**. Treasurer for the past five years, Steve's calm and cool demeanour belied his passion for the VGCSA and we will miss his wise input in running the association. A big thank you to both Barry and Steve.

With Steve stepping off the committee, existing committee member **Adam Lamb** (Barwon Heads) has moved into the vacated treasurer's role, while Koorringal Golf Club's **Tay Wilson** is the new face on the general committee. The Dunes superintendent **Simon Muller** moves into the vice-president role. The full VGCSA committee for 2020/2021 is;

- **President:** Shane Greenhill (Sorrento GC)
- **Vice-president:** Simon Muller (The Dunes)
- **Secretary:** John Mann (Commonwealth)
- **Treasurer:** Adam Lamb (Barwon Heads)
- **Committee:** Hayden Mead (Kingston Heath GC), Travis Scott (Riversdale GC) and Tay Wilson (Koorringal GC)

It goes without saying that life has turned upside down since COVID-19 took hold of society. The freedom of life that we took for



PHOTOS: STEVE BURCHETT

Above: The new VGCSA committee comprises (from left) Tay Wilson, Adam Lamb, Travis Scott, Hayden Mead, Shane Greenhill (president), John Mann and Simon Muller



Left: New VGCSA president Shane Greenhill

The COVID-19 travel and meeting restrictions necessitated the cancellation of all planned VGCSA meetings this year, with a decision on the November meeting to be made in early September. The travel restrictions also caused the cancellation of the planned VGCSA trials for 2020. Even in light of this, we were recently able to host a Poa forum meeting via Zoom, thanks to the help of **John Neylan**.

The VGCSA is an organisation that will always strive to serve the needs and interests of its superintendent members. To ensure that the association remains relevant and connected in these changing times, the committee recently conducted a strategic planning meeting. The aim of this meeting was to examine what the association currently provides, what it could improve and what it will do if the COVID-19 pandemic continues on for some time. The outcome of this meeting will be communicated to our members in due course, considering the uncertain times we live in.

**SHANE GREENHILL
PRESIDENT, VGCSA**

granted appears to be a distant hope for the future at this point with Victoria currently experiencing its second wave of the virus. As an association, we are aware of the impacts this has had on superintendents and their golf clubs and we will continue to reach out and offer support as best we can.

A recent initiative to maintain connection with our members was the 'Committee catch-up' meeting via Zoom, with participants from both trade and superintendents joining in. We will endeavour to hold these catch-up meetings once a month with the next one scheduled for early September.

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Getting back to nature

*As the dual course superintendent/
general manager of Paraparaumu
Beach Golf Club in New Zealand,
Leo Barber knows all too well about
the importance of social distancing
yourself from the workplace every
now and then...*

*Beauty is everywhere. Taking the time to reflect, enjoy
the simple things in life and to take in the sights,
smells and the sounds of nature is hugely beneficial
for your wellbeing*



A relationship with nature, by the very choice of the profession, is intertwined into a superintendent's DNA, but it is important every now and then to steal some time away to focus on personal health and wellbeing

Working inside of the turf industry can be a notoriously demanding occupation, with long hours expected, challenging budgets and resources that in many cases can often be inadequate when saddled alongside the expectations of those we work for. Throw in the growing demands of human resources and compliance and, of course, the actual physical challenges of maintaining healthy grass under extreme growing environments, you have yourself a cocktail that needs to be carefully managed.

Often overlooked in all of this mix is our own self-management which importantly includes our physical health and mental wellbeing. I often joke to those outside of the turf industry about grass not sleeping or tempering the excitement of others as they head off to enjoy a hot sunny day knowing that my enjoyment factor is being constricted wondering if my turf is stressing out, or similarly if it rains, whether disease is taking hold.

I informed my wife many years ago not to try and understand my love/hate relationship with the weather when she quietly asked me if I was now happy it was raining having witnessed me for days lamenting a hot dry spell. She was somewhat taken aback when I replied that the rain that I had spent days hoping for was probably now encouraging

the spread of disease through my beloved surfaces – it was a no win!

So, if grass doesn't sleep or take leave, or enjoy certain weather or recognise holiday weekends, what can we do as turf managers to switch off, preserve some sanity and allow our bodies to recharge?

A few years back this was becoming a real problem for me. My life was golf. Obviously I

worked in golf, but if I looked around most of my immediate friends were from golf. Golf was my passion and in addition to working on the course I also tried to get out there weekly and play it for recreation. A good portion of my social scene also revolved around golf and the various club events and whenever I jumped on an airplane, you guessed it, it was likely for something golf related.

Now I guess as turf managers that's kind of what we do, right? That's what makes us tick and what drives our passion for the industry and our striving to achieve a decent career within it. However, this can create a fairly insular environment and in those periods where things are maybe not going so smoothly – and regardless of your ability or position, we all face that at stages – there are often not many places to turn for respite.

As my grandmother used to say, 'Don't have all your eggs in one basket', so if we are going to survive in this industry and accepting that we will likely never be the kind of people that completely shut off for long periods, we need to find suitable shorter periods where we can do just that and, perhaps, discover some other interests to help trick the mind into relaxing.

There are a host of things available – reading, travel (well, as much as can be allowed for some in the current COVID-19 climate), socialising, listening to podcasts, sport and gym to name a few. For me it has





Nothing beats the euphoria of conquering a peak and then sitting back with friends to soak in the sunset and a well-earned beverage

been a case of 'getting back to nature' which in many aspects can actually encompass all of the above. Working in the beautiful environments most of us do, this isn't a massive transition, but the positives of doing so in locations outside of the white out-of-bounds lines that border our golf courses are immense.

Here are four benefits to consider and, if you think about it, these are not only good for the soul but they are great for when we drive back through the gates into work.

- **Reduced stress and elevated moods:** The sights, sounds, smells, tastes and feel of nature can have a calming effect and help our minds unwind.
- **Improved quality of sleep:** Natural sunlight helps set the body's internal clock that tells us when to eat and sleep.
- **Increased attentiveness and time for reflection:** Being out in nature gives your mind time to rest and think, to work out problems.
- **Enhanced satisfaction:** People with access to nearby natural settings have been found to be healthier overall than other individuals.

Getting 'back to nature' doesn't have to involve strapping a 30-kilogram backpack on, lathering up with sunscreen and huffing it up a mountain (although if that's your thing, tramp on!). It can be as simple as sitting under a tree at a nearby park, working in the garden or exploring a local track. It is the exploration of local tracks that I have found to be the most rewarding, as some of the other options still felt a little too close to what we actually do for a job!

New Zealand, where I live, is blessed with an abundance of natural beauty, but it's often the case that regardless of where you live we are all guilty of ignoring what is sitting right in front of us. Beauty is everywhere. Even in heavily urbanised environments there is a huge push by civic leaders to create trails and tracks down their slithers of greenbelt.

However, for me the real enjoyment and escape has occurred when I have managed to get a little further away from suburbia which, granted, in the large cities the majority of us reside in might not be as easy but should still be possible. Nothing too serious, some manageable walks of an hour or so into the bush or along the coast which in turn has led to some day treks and even an occasional overnighter with friends or family has proved to be incredibly uplifting.

Not a hardcore trumper myself, I have enjoyed the escape and what occurs when the noise of our modern-day bustle is turned down as part and parcel of being off the grid and away from urban distractions. I have found that the time to reflect, to enjoy the simple things in life and to take in the sights, smells and the sounds against the otherwise beautiful isolation of nature has been hugely beneficial.

A relationship with nature by the very choice of our profession is intertwined into the DNA of every golf course superintendent. As we look forward to perhaps returning to normal post COVID-19, maybe it's time to begin now to plan and research for ways you can find opportunities to invest in your health and wellbeing by reconnecting with nature and social distancing ourselves from work every once in a while. 🌿



Getting back to nature can also be a great way to connect with family away from modern day distractions



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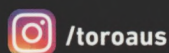
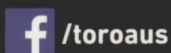
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