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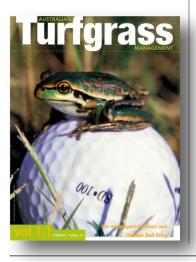
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LEAD STORY: The seed of something big

In 1998 the AGCSA took a significant step in its short history by deciding to part ways with Golf & Sports Turf magazine to start up its own industry publication. Under the guidance of then AGCSA chief executive Euan Laird, inaugural editor Phil George and an AGCSA Board headed by current day CEO Peter Frewin, the birth of Australian Turfgrass Management (ATM) created plenty of discussion, with some of the opinion that it would end up on the cutting room floor within a handful of editions. Through the dedication and persistence of these individuals, along with the incredible support of the industry and its practitioners, ATM raises the bat with this, the September-October 2015 edition - Volume 17.5. Current day editor Brett Robinson catches up with Euan Laird to look back on the early days of ATM, while Phil George takes a light-hearted look at some of the early editions when he was 'editor-in-chief'.

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A heartfelt thank you

ell, here we are! This edition marks the 100th occasion Australian Turfgrass Management Journal (ATM) has rolled off the presses. It has been a fascinating journey, one which the AGCSA embarked upon back in late 1998 with about as much knowledge of publishing as I did of turf when I first landed as editor in May 2003! Somewhat scarily, this edition marks my 74th in the big chair and together with art director Jo Corne we have now pumped out 64 editions. And we still get along – just!

It's not until you look back over the past 99 editions that you actually begin to appreciate the sheer volume of content that the AGCSA's flagship publication has produced. From the early days where there was a very heavy technical and scientific bent to the articles presented, through to the more human interest pieces that feature prominently today, there really isn't too much that ATM hasn't covered.

ATM has managed over the years, I believe, to strike an excellent balance between the two and ever since that unforgettable first edition it has set an industry benchmark with its high quality content and design. In addition, ATM has been the primary extension publication for Australian turfgrass researchers and has unstintingly provided the many state and industry associations with a vehicle through which to have their voice heard. It's these roles that ATM takes very seriously and will continue to focus on as it forges ahead towards the next milestone.

The journal serves as a tremendous knowledge bank and chronicle of the development of the Australian turf industry over the past 17 years. Still to this day it proudly upholds the initial desire of the AGCSA to provide a publication of unrivalled quality that celebrates and champions the efforts of Australia's skilled turfgrass practitioners. It goes without saying that it has been an absolute privilege as editor to help facilitate that.

When I was appointed editor I was given the remit to personalise the journal more, with the aim being to complement the strong technical component which it had developed a strong reputation for. I would like to think I have achieved that and I have thoroughly enjoyed meeting so many wonderful people and being able to share their remarkable stories.

As we celebrate this 100th edition there are so many people to thank who have played a significant role in ATM reaching such a prestigious milestone. Kudos has to be given to the AGCSA Board back in 1998 for taking the punt and going out on its own. Similarly, inaugural editor Phil George and AGCSA CEO Euan Laird deserve mighty praise for the manner in which they established the journal's concrete foundations during what was a momentous few years for the fledgling national association. Special mention must also go to my wonderful colleagues at the AGCSA over the years for their tremendous support, friendship, good humour and for somehow putting up with a cantankerous Kiwi editor's own version of PMT (pre-magazine tension) every time deadline looms!

But the biggest thank you is reserved for you, the reader, and the many contributors who have filled the pages of ATM over the years. You are what makes ATM the successful publication it is. At its core ATM is about the people in the industry and being a vehicle to promote their hard work and dedication and hopefully in return it assists them in their professional development by providing a cutting-edge resource. I am still amazed at the generosity of time, effort and spirit that all turfies possess and without that my job as editor would be a hundred times harder. So, thank you everyone; thank you for reading, thank you for contributing and thank you for your unwavering support. Roll on the next 100 editions!



Jan 11

Brett Robinson, Editor



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100 editions on and still setting an industry benchmark



nother year is fast drawing to a close with the days starting to lengthen and that wonderful feeling of spring in the air as the country awakes from what has, in places, been a very dismal winter. I know it is spring as the staff in the office start to talk about what medications they are all on for hay fever!

With spring comes the change of season for most turf managers. The tournament golf season has already teed off and with Australia boasting another Major winner, the golf industry will be keen to see if that translates to increased participation numbers which was the case a few years back when Adam Scott broke the drought at Augusta National. At other sporting venues the goal posts start to come down and we all hope that the summer season of cricket has a better outcome than the recent Ashes series.

This column is titled Foreword Thinking (with a bit of a play on the word 'forward'), but in this instance I would like to take the opportunity to reflect for a moment and celebrate what is a great achievement. As you will have noticed from the front cover of this edition of Australian Turfgrass Management Journal (ATM) it is somewhat of a milestone as it celebrates its 100th edition.

I must say it is with a great sense of pride and satisfaction that I write about this milestone as ATM is something very close to my heart. The AGCSA has had involvement with two turf magazines over the course of time – Turfcraft International, which in the day was under the watchful eye of the recently departed **Ted Drinkwater**, and Golf and Sports Turf which was published by Glenvale Publications. Turfcraft is still around but Golf and Sports Turf is no longer produced.

In 1998 the AGCSA Board and inaugural chief executive Euan Laird made the decision to part ways with Golf & Sports Turf and start up Australian Turfgrass Management Journal. Pictured from left are Laird and AGCSA Board members Mark Couchman, Peter Schumacher, Peter Frewin and Craig New





I can vividly remember the day in 1998 when the AGCSA Board which included Mark Couchman, Craig New, Peter Schumacher and myself (as president) sat down at the AGCSA office (then in Glen Waverley) and discussed what would be the best way forward taking into account the strategic interests of the AGCSA. It was soon clear to those around the table, under the watchful eye of then AGCSA chief executive Euan Laird, that change was required.

It was agreed by all that if the industry was to have a publication that would not only be of great quality but also produce great editorial content, then the industry it served should be in control of the publication. After some considerable 'negotiations' with our partner (Glenvale Publications) at the time it was decided in November of 1998 that we would amicably go our separate ways.

In the same month the AGCSA appointed its first full-time editor/sales manager in **Phil George** who came across from Turfgrass Technology. For those that know Phil, he was a great character and was able to rally the troops to get ATM off to a great start, with the first edition circulated to the turf community in February/March 1999.

The cover photo was the iconic shot of the green and golden bell frog which was famous at the time as it was being re-established at Long Reef Golf Club in Sydney. You can read later on in this edition how the photo came about as we catch up with **Trent Penman**, the man responsible for what is still regarded as the best cover photo ATM has carried over the years. The first edition of ATM was actually not the first 'in-house' publication that the AGCSA undertook – the 1999 AGCSA Wall Planner took that honour.

Since Volume 1.1, ATM has continued to go from strength to strength having received multiple awards both nationally and internationally in a variety of disciplines (writing, photography and design). Credit must go to AGCSA editor **Brett Robinson** and graphic artist **Jo Corne** for making ATM the premier turf industry journal in the region. Major thanks also must be extended to the many trade partners that have made ATM the success it is; not only do they support the journal but are pivotal to the success of the AGCSA and its membership.

Finally, many would be aware that the AGCSA has been undertaking a full strategic review of its operations. I am pleased to report that a draft of the AGCSA Strategic Plan will be circulated to the membership very shortly for comment. Once we have received the feedback from the membership the document will be finalised and published. It is anticipated that this document will be the road map for the next few years and give the AGCSA some clear direction going forward.

Enjoy what is left of the cooler weather as we prepare for what the weather forecasters are saying will be a tough summer ahead. I look forward to catching up when our paths next cross. W



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In late 1998 the AGCSA took a significant step in its short history by starting up its own industry magazine. Under the guidance of then AGCSA chief executive Euan Laird and inaugural editor Phil George, the birth of Australian Turfgrass Management (ATM) magazine caused quite a stir, but now, 100 editions on, it has become an industry mainstay. This edition, Volume 17.5, sees ATM raise the bat and to celebrate the occasion current day editor Brett Robinson catches up with Laird to reflect on those early days, while George takes a light-hearted look at his time as 'editor-inchief'.





The seed of **Something big**

n behalf of the turf industry editorial committee, welcome to the very first edition of Australian Turfgrass Management (ATM). I guarantee it will keep you entertained and informed about all that's happening in the world of turf and more. It has been a very busy couple of months for the ATM team, but we are confident that the move to a new title and new publisher will provide readers with a superior industry publication."

It was with those words that inaugural editor Phil George kicked off the very first edition of ATM which hit maintenance facilities and superintendent desks around Australia for the first time in February-March 1999. After many months of careful planning, multiple meetings with industry partners and sourcing a raft of fresh content across all sectors of the Australian turf industry, a dream that had its formation the previous year at an AGCSA Board meeting had finally come to fruition.

It was a momentous leap of faith for the AGCSA Board in November 1998 to part ways with Glenvale Publications who it had teamed with since 1993 to produce Golf & Sports Turf (GST). The split was not exactly harmonious and with another highly respected competitor in the market in the form of TurfCraft International (which the AGCSA was involved with prior to GST), the fledgling ATM was up against it from the start. With absolutely no experience in the world of publishing it was quite the risk, but at the time the AGCSA was an organisation on the move and having its own magazine was seen as a key to progressing the association and growing its membership base.

That first edition, which stretched to 64 pages, was a real team effort. You had the AGCSA Board of the time which included then president and current day AGCSA chief executive Peter Frewin along with fellow directors Peter Schumacher, Craig New and Mark Couchman. Then there was the editorial



committee that had been brought together from across the industry, which included Frewin, New, Ian Chivers (Racing Solutions), David Aldous (Burnley College), Warren Williams (Doomben Racing Club) and Ross Ward (Noosa Heads Bowls Club).

The real drivers, however, those whose responsibility it was to actually produce the goods, were inaugural AGCSA chief executive Euan Laird and editor Phil George. Through a lot of sheer hard work and determination, not to mention the odd bit of good fortune, Volume 1.1 featuring the now famous 'frog on a ball' cover got to the printers on time and in doing so launched a publication that has now proudly served the Australian turfgrass management industry for the past 17 years.

Over the next 30 pages ATM looks back at the past 99 editions and reviews some of the highlights and lowlights along the journey. We look at some of the stories and covers to make it to print, while prolific contributor John Neylan reflects on some of the changes to the industry ATM has borne witness to. We also take a look at the process behind producing each edition. But first, current day ATM editor Brett Robinson, who has been at the helm for the past 74 editions, talks with Euan Laird and looks back at the formation of ATM and the many challenges the AGCSA faced in getting the magazine up and running.

ATM: Euan, take us back to what prompted the AGCSA to embark on a path to producing its own magazine. How big a step was it for the association to break away from Golf & Sports Turf (GST)?

Euan Laird: "GST had served us really well, but we looked internationally at the likes of the GCSAA and saw that most of those associations had their own publication. The AGCSA Board at the time and I saw that having our own publication would help raise the image of superintendents as well as the professionalism of the AGCSA as an organisation itself.

"It was all part of the bigger picture of raising the profile of superintendents as a profession. At the time there were a lot more qualified greenkeepers coming through and getting superintendent roles. There was also a quantum shift at the time with the role of superintendent – it was becoming less of a hands-on job and more scientific and management focused. We saw the magazine as being an ideal vehicle to extend the reach of superintendents and support them in their endeavour to develop themselves professionally.

"At the same time we also wanted a magazine to focus on the human side of the industry by profiling superintendents and presenting case studies to showcase the important work that they were doing, whether it was presenting the course for a major tournament or even just the day-to-day running of their course. They were doing an enormous job with very limited resources and we saw the magazine as being critical to help tell those stories."

ATM: Were there any particular individuals who really drove the move to set up ATM?

EL: "The AGCSA Board of the time – Peter Frewin, Peter Schumacher, Craig New and Mark Couchman – were very progressive. In fact all the Boards that I worked with at the AGCSA were very proactive and, if I'm being honest, some of the best I have ever worked with. They were always willing to look at new ideas and they pretty much gave the green light to most of the recommendations put forward to them after doing their due diligence. Peter Frewin was certainly a key driver in those initial discussions.



Left: After parting ways with Golf & Sports Turf which it had been involved with since 1993, in early 1999 Australian Turfgrass Management (ATM), the official publication of the Australian Golf Course Superintendents' Association, was born

Above: Former AGCSA chief executive Euan Laird, together with inaugural editor Phil George, were instrumental in the early success of ATM. Laird was with the AGCSA nearly 10 years before departing in 2002

Euan Laird (left) along with AGCSA Board members (from left) Mark Couchman, Peter Schumacher, Peter Frewin and Craig New and AGCSA administration manager Virginia Thompson in 1998





The edition that launched Australian
Turfgrass Management into the
Australian market in February-March
1999. The cover still ranks as one
of the most recognisable ATM has
carried and it set strong credentials
for future editions

Environmental management was starting to become a big thing at that time and Peter was very keen to get on the front foot with that and the magazine gave us the opportunity to highlight its importance."

ATM: What was the reaction of GST publisher Glenvale Publications once the AGCSA Board unveiled the news it was setting up a third turf industry publication?

EL: "I remember the meeting with Glenvale Publications managing director Graeme Cox. We wanted to take the GST masthead with us because we wanted that continuity and I had some legal advice beforehand, as I'm sure Graeme did too, so I knew it was going to be a very difficult meeting. While it was great being part of GST, it didn't have its own identity and it was important to give the AGCSA its own flagship publication. We ended up agreeing to go our separate ways with Glenvale Publications retaining ownership of the masthead which meant we would launch our own.

"I knew in the back of my mind we had the support of many in the industry – the superintendents, the trade – and that in the long run the advertisers would come with us because we had a great marketing product. Superintendents are a fantastic product as they are so professional in what they do,

so if we could convince those advertisers that we were providing them with access to their key target market then they'd follow us."

ATM: Did the industry get behind the new venture? Was it hard to get the industry's support?

EL: "There were a lot of changes happening in the industry at that time when we started up ATM. With three publications now serving the industry, all the trade suppliers were trying to find out where they should dip their toes in the water in terms of who to support. It took a while for a few of the smaller companies to come on board, but the likes of the big manufacturers – Toro, John Deere and Jacobsen – supported ATM from the start. We knew we had a quality product in terms of the design, the content and the readership and we knew they'd come on and support.

"In saying that though it was certainly a leap of faith and we had a number of meetings with many companies about the decision to start ATM. While most were supportive there were a few particular companies that were concerned where the publication was heading and especially given that it was up against some established titles. TurfCraft in particular had a solid following, especially in Victoria, and had a really good product under Ted Drinkwater. There were certainly a few heated discussions with some of those companies, but they eventually came on board which was pleasing.

"It was the state associations who expressed the greatest doubt. The AGCSA was still relatively young then and they were concerned not only about the ability of ATM to match it with the likes of TurfCraft but where the association was headed generally. Slowly but surely we got them on board and we made a big effort to get the state reports in each edition, although I must say they were the hardest things to get. We were constantly ringing them for their reports and basically had to write them in some cases.

"But you have to break some eggs to make an omelette. We knew it would be tough initially but we were looking at the long-term picture. If the AGCSA was to progress as an association we had to have an effective communication tool that got direct to our members without the message being diluted. The only way to do that was to have our own magazine. We certainly made a few enemies along the way and I'm sure there wasn't an edition where we didn't piss someone off, but we knew in the long run it would work out. The very fact that ATM has now reached the milestone of 100 editions is testament to that."

ATM: You employed Phil George as inaugural ATM editor. What qualities did he bring to the role?

EL: "I only had two requirements when I went searching for an editor – they had to have less editorial experience than me and they also had to be shorter than me. Phil ticked both boxes! We

A strongly-worded editorial in the December 1998 edition of Golf & Sports Turf let it be known what Glenvale Publications thought of the AGCSA's decision to go out on its own. With the advent of ATM there were now three publications servicing the Australian turf industry



wanted someone who came from the industry, who was young and a go-getter, so we poached Phil who was working for Turfgrass Technology at the time. To me it was more important that we had someone with that turf background than editorial experience and as it happened Phil was looking for a different role in the industry. He was keen from our very first discussion and he proved to be a very good fit. He thought outside the box a lot and that's what we were looking for."

ATM: Can you recall pulling that first edition together? Was it a difficult one to get out?

EL: "They were interesting days. Both Phil and I had no publishing experience whatsoever and to be honest we just winged it. I clearly recall taking Phil to Publicity Press, who we had chosen to produce the magazine, for the first time to meet up with the design team and discuss what we wanted. They came up with some page layouts and design options and together we refined them. Poor Phil was thrown in the deep end big time and I remember walking back to the car with him and he was sucking in the deep breaths and no doubt wondering what the hell he had gotten himself into! But he managed to pull it off and we went on from there.

"We chose Publicity Press as I had been impressed with the magazines they were producing at the time, one of which was Australian Triathlete

Every time the magazine hits my desk,

I feel very proud and chuffed that it
has stood the test of time. It really has
achieved, and far exceeded, where
many of us thought it would end up.

Magazine. The design and production quality was excellent and I knew from that they could produce the quality look and feel which was what we were after to differentiate us from the other turf magazines. They were an expensive option but it gave us a concrete foundation for a good looking product.

"The front cover of that first edition was certainly a memorable one and we laid some solid credentials, especially the environmental flavour of that first edition. We hoped to show people that ATM meant business and that we were in for the long haul. We weren't just another basic turf newsletter; we were fair dinkum having a crack at producing something good for the industry.

CONTINUED ON PAGE 12





You edit a grass mag?!

Along with then AGCSA
chief executive Euan
Laird, inaugural editor Phil
George played in integral
role in getting Australian
Turfgrass Management
up and running. Now a
Perth-based senior wealth
management adviser,
George recounts some of
the highlights from his time
in the editor's chair!

ONE HUNDRED EDITIONS hen you meet someone for the first time almost invariably the first pregnant pause is followed with the question 'So, what do you do for a job?' When the answer that follows is that you are 'editor-in-chief' of a magazine about grass (turf was a new age word back in 1999) that person either takes you for a drug dealer and looks for someone else to annoy, or they assume you are 'taking the piss' and between fits of laughter start gesturing to their friends to come over for a listen.

Then, when they find out that 'Australian Turfgrass Management (or ATM)' is the new kid on the block, competing hotly for editorial content and advertising spend with an already successful and established 'magazine about grass', all hell breaks loose and the free drinks start flowing.

That was about the extent of my social life for a few years when the fledgling editions of ATM rolled off the presses, but hey, myself, Euan Laird and the AGCSA Board had a plan and this was no joke. We were determined to build the AGCSA into a modern, relevant industry association with multiple revenue streams that allowed it to provide real value to members and become the 'voice' for the turf industry more generally. ATM was key to achieving these lofty ambitions so off we went, pad and pencil in hand, to interview design firms and printers, doing our best to at least give the impression that we knew a 'perfect bind' from a 'saddle stitch'.

We settled on a design firm on High Street in the flash Melbourne suburb of Armadale for the production. Looking back this was a gutsy move but one that I feel has been vindicated. Publicity Press was pretty 'high gloss', ill-suited you would think to a serious scientific journal, but looking at the magazine today, 99 editions later, put sunglasses on and it doesn't look that different!



The graphic designers were all saving up enough money to move to Greenwich Village and live in a one bedroom loft apartment! To them design was more religion than art and they sustained themselves on nothing more than salmon bagels and wheatgrass shots! Looking back at the first three or four editions and I am now convinced there was more than just 'vanilla incense' burning in reception!

Wow... the colour scheme on the lead article in Volume 1.1 'Translocation of the endangered Green and Golden Bell Frog to Long Reef Golf Course' (nice punchy headline) truly was horrific, but what a great cover! AGCSA member Trent Penman took that shot and it absolutely saved my bacon as there was nothing else that was even remotely cover grade. I thought we were finished before we had even started!

The 'frog on the ball' cover got plenty of comment and in many ways seemed to set the tone for something a little different and slightly quirky. The other covers that attracted comment (not good mostly) were editions 1.6, referred to by lan Trevethan (then Moonee Valley Racing Club) as the one with the 'horses arses all over it', the close-up of John Neylan's eye on Volume 2.2 (he wasn't happy at all!) and my laundry tap on the cover of Volume 5.1. You had to be resourceful back in those days. What about the Y2K bug edition (Volume 1.2) with the Melbourne Grand Prix on the cover... that was a cracker!

Not many people know this but my final draft of Volume 5.2 had a suitably attired swimwear model on the front cover and it looked brilliant! Leading into the 'bumper' 2003 Australian Turfgrass Conference edition and with some new initiatives to promote, I felt I needed to 'break glass in emergency'. Alas,



with steam literally coming out of his ears, then AGCSA president Mark Couchman escorted that idea to the cutting room floor himself. That was definitely the right decision but I wish I still had a copy of the mock up. Incidentally, that was my last edition as editor.

It's interesting to note that only three of the first 12 magazines – Volumes 1.3, 1.5 and 2.4 – featured a shot of a golf course on the front cover. That ratio looks to have picked up a little now but in the early days we wanted to be different and we wanted to include all sectors of the turf industry. We were firmly of the view that the guy running Royal Melbourne Golf Club could learn something from Rockingham Racecourse and it was our job to facilitate that.

I think we did a reasonable job of the content in those early years. Getting the balance right between the different sports/facilities, the different states and mixing general interest with the need and desire to give heavy weighting to relevant scientific research was actually really tough.

We didn't have an editorial budget and production of the magazine was principally funded by advertising so we had quite a few balls in the air for most of the time. The many companies and individuals that provided products and services to the turf industry were incredibly supportive of the magazine and to be honest we could not possibly have done it without them.

That isn't to say that we didn't have violent disagreements. For a couple of years there we had one edition per year dedicated to turf machinery. In each of those editions we ran a segment called 'Tool Test' where we would get a bunch of AGCSA members to road test fairway mowers or utility vehicles. Talk about throw the cat amongst the pigeons! I almost had to go into witness protection a couple of times.

To me there are many articles and interviews that stand out for various reasons but the most lasting impression comes from the generosity and effort put in by all who contributed to the magazine.

The scientific community both here and overseas were always willing to find the time to contribute something that they felt might be useful and not once can I remember being turned away at the gate by a superintendent or curator too busy to communicate some knowledge or help out with some photos. Often those photos were dog-eared and at the bottom of a shoe box and the knowledge scrawled on the back of an irrigation plan, but either way it was gold.

To present editor Brett Robinson, now AGCSA chief executive Peter Frewin and current day art director Jo Corne, thank you for the opportunity to go back and relive the early days of ATM. I feel honoured to be a part of the 100th edition and congratulate you on what you have built.



Far left: The seed of something big. Phil George's editor's address back in Volume 1.1 of ATM. George is now a senior investment adviser in a leading Perth-based wealth management company

Above: The Tool Test, which pitted rival companies putting their machines to the test, caused George no end of headaches with partner companies and was eventually shelved



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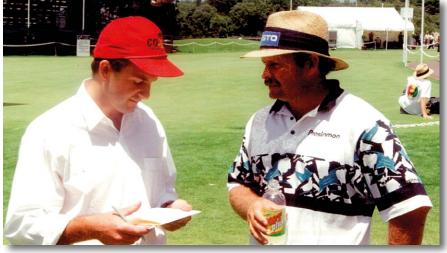








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Laird interviewing Peter Senior.
Laird contributed a number of articles in the early days, including the very first feature in Volume 1.1 on the 1998 Presidents Cup at Royal Melbourne

CONTINUED FROM PAGE 9

"From a content point of view, when Phil started I had a six month plan worked out in terms of editorial, but Phil also generated a heap of content as well. Looking back I don't know how we managed to produce the volume of content we did with so few staff at the time. At no other job since have I been able to achieve that amount of work! When you consider we were also organising the Millennium Conference, launching the AGCSA accreditation scheme and AGCSATech, they were busy times. Then we had ATM on top of that! We were naive and stupid but that probably helped in our thinking that we could do it, but it really was a case of winging it initially. But everything slowly but surely came to fruition and ATM started to gain the respect of the industry."

ATM: You hold the honour of writing the very first feature article that appeared in ATM – a review of the 1998 Presidents Cup at Royal Melbourne. Did you enjoy penning articles for ATM?

EL: "I can't even remember that! I do remember Rick Beal from Turf & Irrigation coming into my office one day as we were getting that first edition ready and my office was an absolute tip – paper covering the desk and all over the floor. He took one look and asked how could I work in such a mess – it was paper warfare!

"I actually came to quite enjoy writing the articles and contributing. In saying that though I look back now at some of the stuff I did produce and by no means was I a writer. But we got through. As well as having that scientific and technical element to the content, we tried hard to focus on the human interest element. With both Phil and I having that technical background, we were able to ask the right questions of superintendents and that certainly helped, things like chemical and fertiliser applications and how they went about their maintenance practices. I can still recall many, many late nights writing articles at the last minute as edition deadlines approached. I have always been a bit of a procrastinator but there was nothing like an editorial deadline to hurry things along and force the issue."

ATM: What was the reaction to the first few editions of ATM?

EL: "For the most part it was positive. I think there was more surprise, especially from the state associations, that we could produce such a quality publication. When that first edition came out I think they finally realised that we were serious and having a crack at something decent, even if both Phil and I had no experience in publishing. After about three editions the negativity started to disappear, but it was tough. GST came out with all guns blazing offering special rates to try and knock us off."

ATM: Any editions or articles that stand out?

EL: "The conference editions were always tough really quite painful to be honest - especially trying to get the exhibitor listings from the companies. The Melbourne 2000 conference edition was huge as it was the first time we had brought the industry together - golf, sportsfield, turf technicians - so not only were we trying to organise the conference but also pull a magazine together and launch AGCSATech! It was a mammoth task and we were under resourced - it killed everyone! In terms of controversy we always managed to piss someone off in those early editions. The Tool Test was always controversial but we wanted to be able to provide an independent appraisal of new products rather than just the publicity spiel. Phil did a great job despite the criticism from the manufacturers."

You have to break some eggs to make an omelette. We knew it would be tough initially but we were looking at the long-term picture. If the AGCSA was to progress as an association we had to have an effective communication tool that got direct to our members without our message being diluted.

ATM: Now that ATM has reached 100 editions, what are your thoughts on how far it has come?

Euan Laird

EL: "I think that what ATM has gone on to achieve is awesome. The current editorial team does a great job – the editorial pieces are well written and very sharp/humorous at times – and it's nice to know that the magazine is in very good hands. Every time the magazine hits my desk, I feel very proud and chuffed that it has stood the test of time and that it is still a quality publication respected by all within the industry. It really has achieved, and far exceeded, where many of us thought it would end up."

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The Brisbane River floods of 2011 impacted many courses including McLeod Country Golf Club and Brisbane Golf Club. ATM's coverage in Volume 13.2 stretched some 16 pages and more than 11,000 words

The **blg** stories

Australian Turfgrass
Management has covered
a plethora of stories over
the years, everything
from cutting-edge turf
management research,
environmental management
to the very personal
and remarkable tales of
industry practitioners
and the events that have
befallen them. Editor Brett
Robinson picks some
of the standouts to have
graced the pages of ATM.





s I penned in my editor's note at the front of this edition, ATM would not have reached the 100 issue milestone were it not for the wonderful people that make up the Australian turf industry. A more passionate, dedicated, honest and hardworking group of people you could not meet and their innate ability to stand by each other in times of need makes it an industry that I am proud to be associated with.

Turf management can be a pretty heavy topic at the best of times and while ATM has carried a vast array of cutting-edge technical and research articles over the years, it has been the human interest stories and tales of triumph over adversity which have struck a chord with many readers. Here are a few of the more memorable stories to have come across my desk during my tenure as editor.

THE WARRINGAH SAGA: VOLUME 5.6

I had only been in the editor's seat for a few months and still getting my head around the turf industry when I received a phone call from Terry Muir. For the next hour I furiously took shorthand notes and barely spoke a word as he proceeded to fill me in on the upcoming case in the NSW Land and Environment Court where Warringah Golf Club was being tried for a pesticide spill that occurred in 2001. Needless to say this was big and the journalist in me was itching to tell the story.

ATM's subsequent coverage of the findings and severe sentences handed down against both the golf club and course superintendent made for extremely sobering reading. Although those articles, which appeared in Volume 5.6, were written nearly 12 years ago, they are still as relevant today as they were then and for anyone coming into the industry, regardless of whether in maintenance or club management, it makes for compulsory reading.

From a personal point of view, the article was immensely challenging to write. Not only did it involve a huge number of hours trawling through



court documents and findings, it was also a highly emotive issue for many within the industry. It was therefore important not to get caught up in that and present the facts as they had been handed down and to let the industry take from the verdicts what they wanted.

The various elements that combined to make up the Warringah feature stretched to more than 10 pages and 8800 words. The assistance of Terry Muir in putting it all together cannot be under-estimated and I thank him for his insight and input at the time and in subsequent editions where we continued to ram home the importance of environmental compliance.

The Warringah incident certainly made an industry stand up and take notice and triggered within many a great desire to improve their environmental credentials. Our coverage of the incident still remains one of the proudest moments of my time as editor, especially its comprehensiveness, and I'd like to think it helped to facilitate some positive changes in the industry.

OUR GREATEST FOE - MOTHER NATURE: VOLS 11.2, 11.3 AND 13.2

Mother Nature has and will always be a superintendent's gravest foe and her power and ferocity has been the subject of countless pages of ATM editorial over the years. From the Sydney

hailstorms in the early 2000s, the Gold Coast floods in 2005 to the extended drought throughout the 2000s, the ongoing battles superintendents and turf managers have had have made for some of the greatest and most compelling content. Two events, not surprisingly, stick out more than most.

I was up early the morning of 7 February 2009 picking up my son's first bed in the eastern Melbourne suburb of Kilsyth. It was 8am and already the temperature gauge in the car registered 38. The wind was howling and it was like being in a blast furnace. By 4pm, when I went to the shops, the gauge said 50°C. To the north, dark plumes of smoke were rising high into the atmosphere and it was then that the first reports of the worst natural disaster in Australia's history started filtering through.

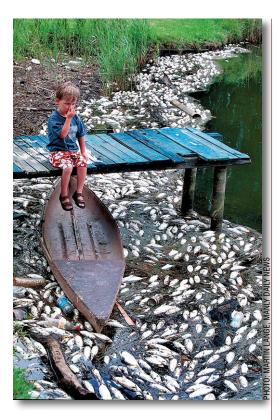
Black Saturday was a life-changing event for many people in Victoria and the turf community bore a significant toll. Reading back on the coverage in Volumes 11.2 and 11.3 of the devastation at both Horsham and Marysville golf clubs, it is quite staggering and brings a shiver to the spine. Re-reading how young Marysville apprentice Kellan Fiske, who incidentally is now superintendent there, not only saw the course he worked at completely devastated but also tragically lost his mother and brother in the fires, still hits very hard.

And then to read the story of then Marysville superintendent Rob Christie who by a sheer twist of fate was away on a family holiday when the fires devastated his home town and the lives of his friends and community added yet another gut-wrenching element to it all. Likewise at Horsham and hearing the harrowing story of then assistant superintendent David Gove and his wife and neighbours fighting to save their houses as the golf course next to them went up in flames.

Fast forward nearly two years to January 2011 and it was the turn of Brisbane to witness some of the worst floods in Australia's history. I'll never forget driving through the gates at Indooroopilly Golf Club with Pat Pauli a week after the flood waters had subsided to be greeted by a mud-splattered Charlie Giffard and surveying the vast sea of brown mud where green fine-cut turf once resided.

Likewise, a few clicks up the Brisbane River at Wolston Park, I recall standing next to superintendent Warren Langlands staring in utter disbelief at the river more than 10m below us and trying to imagine the river being above my head as it had been during the peak of the floods. And to see the waterline just under the eaves of the Brisbane Golf Club maintenance shed and then walking around the back to find a Gator resting vertical against a surrounds mower!

ATMs coverage of both the Black Saturday fires and Brisbane River floods was very in-depth and received national acclaim. The latter stretched across 16 pages and comprised more than 11,000 words, the most comprehensive coverage of a



The Warringah Golf Club pesticide spill verdict which featured in Volume 5.6 was without question the single biggest industry-changing event that ATM has covered

single event in a single edition in ATM's history. Similarly the articles on Horsham and Marysville covered a mammoth 19 pages across two editions and the article recounting Rob Christie's story won ATM the inaugural Tom Ramsey Award for Journalistic Excellence at the 2009 Australian Golf Media Awards, the industry's highest honour.

While a lot of work went into presenting these stories, they were in fact the easiest to write. Those involved in these tragic events literally wrote the stories themselves through their words as I interviewed them and it was a privilege to be able to then present that in the pages of ATM. What stood out most for me from all these natural disasters was the sheer resilience and determination

The article recounting the story of Marysville superintendent Rob Christie and the impact of the Black Saturday fires on both a personal and professional level won ATM national acclaim in 2009





Black Saturday, the worst bushfire disaster in Australia's history, severely impacted the likes of Marysville and Horsham golf clubs which featured prominently in Volumes 11.2 and 11.3 of turf managers to just get on with the job. It also showed the tremendous fraternal bond that is such a hallmark of the industry. So many individuals and trade companies rallied around to assist those in need and I still recall the contingent of greenkeepers from Royal Sydney Golf Club who drove all the way to Horsham Golf Club – an 11-hour journey of over 1055 kilometres one way – just so they could help out superintendent Tim Warren and his crew in whatever way they could. You have to admire that.

BOURNE INSPIRATION: VOLUME 13.1

Perhaps the most remarkable individual story and one that again showed the true heart of the Australian turf industry, was that of Cottesloe Golf Club superintendent Simon Bourne. To bear



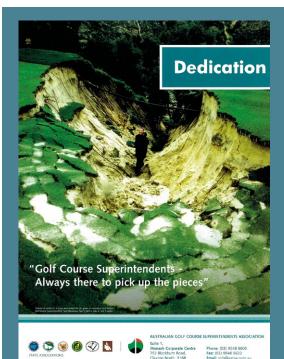
witness to his remarkable comeback from a lifealtering accident while on holiday in Bali that left him paralysed from the chest down has been inspirational.

It still gives me chills to listen to the interviews I conducted with Simon and Marina Bourne back then and the extremely difficult months immediately following the accident. Simon's attitude towards his predicament epitomised what is so great about turf industry practitioners – they just keep on keeping on no matter what they are up against – and to see him return to work within six months and go on to achieve what he has in the years since is one of the real feel-good stories I have been fortunate to cover. Indeed, to watch Simon recently honoured with the 2015 AGCSA Excellence in Golf Course Management Award at the Hunter Valley conference was a remarkable footnote to an incredible journey.

MANY MEMORABLE MOMENTS

There have been plenty of other highlights over the journey and I could fill the remainder of this edition recounting many of these. Having always held a

CONTINUED ON PAGE 18



WHEN IT RAINS IT POURS

here have been a number of striking photos to grace the pages of ATM over the past 99 editions. Who can forget the stunning photo on the very first cover, the very haunting images of Marysville and Horsham golf clubs following the devastating 2009 Black Saturday bushfires and the incredible floods that inundated a number of Brisbane courses and turf facilities in 2011.

However, it was another act of Mother Nature that gave rise to perhaps one of the most unforgettable photos to be printed in ATM. On Sunday, 29 July 2001, Joondalup Resort in Perth copped

Unforgettable – the photo of then Joondalup superintendent Rod Macdonald after the washout of his 5th green that appeared in ATM Volume 3.6 160mm of rain in a six hour period which resulted in the washout of the 5th green on the Quarry/Dunes course.

In ATM Volume 3.6 the quite stunning photo pictured left appeared in the News section showing then Joondalup superintendent and AGCSA Board member Rob Macdonald standing in the yawning chasm that once was the 5th green salvaging pieces of bentgrass sod. Even to this day, Macdonald, who now operates a turf farm just west of Ballina in northern NSW, still has the photo adorning his wall.

The photo rightly received national attention and was used front and centre in advertising material by the AGCSA to highlight some of the many challenges that course superintendents face. Such advertising not only appeared in ATM but also Australian Golf Digest magazine.





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The inspirational story of Cottesloe Golf Club superintendent Simon Bourne demonstrated the true heart of the Australian turf industry and how it rallies around those in a time of great need



CONTINUED FROM PAGE 16

dream as a cadet reporter to cover golf tournaments around the world, while I haven't quite got that wish, being able to chronicle course preparations for the Aussie 'majors'- the Masters (who can forget Tiger's now infamous visit to play the 2009 tournament at Kingston Heath), PGA and Open – has been one aspect of the job I absolutely love.

At every tournament you can be guaranteed a curve ball is thrown – generally in the form of the weather – and it is fascinating to watch how superintendents react and adjust and go beyond the call of duty to prepare their surfaces to the best of their ability. Covering major international tournaments like the Eisenhower Trophy, the Presidents Cup and World Cup certainly rate up there and at times it has felt like Royal Melbourne has been a second home some summers.

The various course and stadium construction and redevelopment articles ATM has carried over the years have also been fascinating - from the

sheer amount of work undertaken at the likes of The Australian and Royal Melbourne through to the current redevelopment of Royal Canberra Golf Club which is breaking new ground by being the first course in Australian to use bentgrass on the fairways. Then there was the transformation of the SCG to host Major League Baseball, not to mention the many projects to improve the world's greatest sporting arena, the MCG.

The rise to prominence and ultimate success of the Barnbougle stable of courses and now the King Island courses about to come on line also reside high in the mind and while we look forward to what Cape Wickham and Ocean Dunes will add to the golfing landscape it is pertinent that we also reflect back on those industry doyens who gave so much but who are no longer with us – the likes of Vince Church, Rod Riley, David Aldous and John Spencer.

Then of course there are the many stories from ex-pat superintendents who have boldly taken a leap of faith to ply their trade overseas with many making a big name for themselves. And then there were the dogs – who could forget the dogs in Volume 10.2, still my most favourite article. As you can tell, I could go on and on...

As part of the recent redevelopment of the AGCSA website all ATM editions going right back to Volume 1.1 have now been digitised and are available through the ATM Archive section. All AGCSA members have access to it, so on a quiet day (not that there will be many of those in the coming months) take the time to go back through the archive and scan some of the articles mentioned above. As mentioned at the start of this edition, when you look back over the past 99 editions it is quite remarkable the depth and breadth of the content ATM has covered and as editor I look forward to continuing and improving that comprehensive coverage in editions to come.

Former Castle Hill Country Club superintendent Martyn Black and his faithful assistants Vinny (left) and Marley (right) featured in 'Tails from the Turf' in Volume 10.2, one of the most loved articles ATM has produced over the years









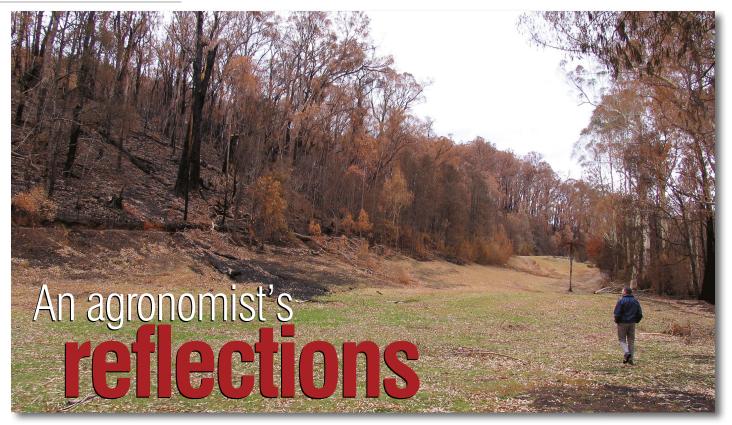


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to this the 100th edition
of Australian Turfgrass
Management, AGCSA
Distinguished Service
Award winner John Neylan
can lay claim to being
the journal's most prolific
contributor (outside the
current day editor of
course). Here he takes
a look back at some of
the articles, editions and
issues that have stood out.

ONE HUNDRED EDITIONS t is a major achievement for the Australian Turfgrass Management Journal to have reached the 100th edition milestone. Back in 1999 it was a huge leap of faith by the AGCSA to produce its own magazine without relying on the assistance of established publishers.

It has been interesting to look back over the past 99 editions and to see the changes that have taken place within the turfgrass industry. Over what has been a relatively short time frame (16 years) we have seen many changes in grasses, technology, golf courses, stadia, environmental management and turf maintenance. The following are a few of the changes that have caught my attention.

ENVIRONMENTAL MANAGEMENT

The front cover of Volume 1.1 with the green and golden bell frog sitting on a golf ball is not only my favourite photograph it also reflects a constant theme over all these years of the positive relationship between golf courses and the environment.

There have been numerous stories in ATM about environmental management on the golf course and the important role golf courses have in preserving and conserving important flora and fauna in urban areas. This theme has been reinforced with stories about breeding endangered fish, restoring remnant vegetation and most recently the outstanding work completed in The University of Melbourne biodiversity project (ATM 16.5).

As a counterbalance to the benefits of golf courses and the environment, is the compelling story of the Warringah Golf Club pesticide spill and the subsequent ramifications. The incident that occurred in 2001 and the subsequent judgement

from the NSW Land and Environment Court in 2003, recounted at length in ATM Volume 5.6, provided the turf industry with a reminder of how easily in the hustle and bustle of golf course maintenance things can go wrong. To this day the story provides a sobering reminder for golf clubs of their responsibilities and the ramifications of neglect.

Improved environmental practices have been strongly promoted through ATM often with the assistance of Terry Muir and e-par. With ATM as the vehicle the AGCSA has assisted in putting the golf industry at the forefront of environmental management in the agricultural and horticultural industries.

In reflecting on all that has been written in ATM, it remains a concern that the game of golf is still struggling to realise the promotional potential of the benefits of golf courses, particularly in heavily urbanised environments.

TURFGRASS VARIETY DEVELOPMENT

Over 16 years, ATM has chronicled the research and development of many new turfgrasses. It is amazing to see the number of new varieties of bentgrass, hybrid couches, seashore paspalum and other niche grasses that have been evaluated for the Australian market in this time.

During this period we have seen research reports evaluating numerous bentgrass (*Agrostis stolonifera*) varieties including the Penn A and G Series bents (2001-2003) through to MacKenzie, Tyee, T1, 007, Authority and Dominant Xtreme varieties (2009-2012). It has also seen the stalwart variety Penncross lose its status as the industry standard.

With the warm-season grasses, ATM has reported on the numerous grasses tested at the former QDPI facility at Redlands Bay which saw detailed trials assessing new *Cynodon* hybrids (*Cynodon dactylon x Cynodon transvaalensis*) such as TifEagle, MiniVerde and Novotek and the seashore paspalums (*Paspalum vaginatum*) MS-Supreme, Sea Isle 2000 and Sea Isle Supreme. The evaluation and the management data for all these grasses has been an invaluable resource.

ATM has had reports on Buffalo grasses (Stenotaphrum secundatum), shade tolerance of warm-season grasses and trials on wear tolerance. The majority of these reports have all come from properly conducted, replicated trials and provide an excellent information resource for all within the industry.

For many years Horticulture Australia Limited was a strong supporter of this independent research and now that it has changed direction, future research in this area is in doubt and raises the question as to who will fund the next independent turf trials?

WATER MANAGEMENT

Over the past 99 editions of ATM there have been volumes written on water management, water conservation, water quality and drought management. The first edition of ATM came out in the first few years of one of Australia's worst droughts and the subsequent articles reported on the increasing severity, the impacts on turf management and the efforts made to source a sustainable water supply. Indeed the very first article I was asked to produce for ATM was on the very topic of using reclaimed water and its quality.

It has been interesting to observe the development of different technologies such as sewer mining, desalination (reverse osmosis) and aquifer storage and recovery (ASR) as a means of securing a water supply. What it also highlights is the absolute dependence that the sportsturf industry has on having access to a reliable water supply.

ATM has provided many useful references on water use management, irrigation audits, soil moisture sensors and the improvements in irrigation





technology. While there is still scope for improvement there has been a considerable improvement in how we use water. It has also been interesting over the past 2-3 years with improved winter rainfall that some of this urgency has dropped off and affirms in part that the turf industry can often be reactive rather than forward thinking.

SPORTSFIELD MANAGEMENT

Since 1999 we have seen dramatic changes in sportsfield management whether it is at the elite level or a council sportsfield. At a local government level in southern Australia the move from coolseason grasses to warm-season grasses has been the most significant change and was largely driven by the drought.

There have been many innovations and changes at the major venues throughout Australia. ATM has described the many alterations at the MCG and in particular the transformation for the 2006 Commonwealth Games while still being used for AFL football and cricket. The MCG provides a great example of excellent planning, new technology and attention to detail.

Far left: John Neylan surveys the destruction on the 13th hole at Marysville which featured in ATM Volume 11.3. ATM's coverage of the Black Saturday fires won national acclaim

Over 16 years, ATM has chronicled the research and development of the many new cool- and warm-season turfgrasses to have hit the Australian market and their performance under a variety of management conditions and stresses







Water management and managing playing surfaces in times of drought have been constant themes across all past 99 editions of ATM. Pictured is the cover from Volume 9.2

Since 1999 there have been dramatic changes in sportsfield management whether it is at the elite level, like the MCG pictured, or a council sportsfield The Year 2000 was a big one for Australian sport with many grounds revamped to host Olympic Games events. ANZ Stadium was the Olympic stadium and was completed in the same year that ATM was first published. The preparation and resurfacing of the stadium after the opening ceremony provided an insight into the modern world of stadium management (ATM Volume 2.5). The construction of ANZ Stadium demonstrated the new innovation of retractable seating so that ideal viewing could be provided for rugby, soccer and AFL football. It has also highlighted the challenges for the turf manager in being able to make these changes while providing a surface that is safe and fit for purpose for a variety of uses.

Etihad Stadium (or Colonial Stadium as it was originally known as) was completed in the second year of ATM (2000) and was unique because of its retractable roof (ATM Volume 1.6). This innovation brought a new level of comfort when watching sport or concerts and has become known for being a 'fast track' for AFL. Etihad Stadium has taken the concept of multi-use venues to a new level as it has hosted concerts, graduation ceremonies, New Year's Eve parties, wrestling, cricket, soccer, rugby and AFL football, often within a few days of each other.



Over the past 99 editions we have seen the reconstruction of the GABBA, Adelaide Oval, Manuka, SCG and the construction of many new venues such as AAMI Park, Metricon Stadium, Robina Stadium (Cbus Super Stadium) and Suncorp Stadium. With many of the new stadiums and the construction of new stands at existing venues, the turf manager's enemy, shade, has become an increasing challenge and we have seen the introduction of artificial lighting rigs at many of these venues. This new technology has had a dramatic effect on turf management and playing surface quality.

Possibly one of the greatest changes for the major stadiums and the need to have the 'perfect' surface for football and cricket has been the introduction of drop-in wickets. The iconic cricket venues of the MCG and Adelaide Oval now use drop-in wickets for cricket so as to better accommodate a full AFL schedule.

The use of drop-in wickets has allowed Etihad Stadium to be home to the Melbourne Renegades Big Bash team and Aurora Stadium has recently used drop-in wickets to increase their use as a year round venue. The specialist technology that has been developed to contain the wicket blocks and to move them has been a remarkable feat of engineering.

DISASTERS

Since 1999 ATM has often been the main source of information surrounding the natural disasters to have impacted the turf industry. This has included bushfires, floods, hailstorms and cyclones. The Marysville fires and the devastation that it caused was beautifully written by ATM editor Brett Robinson in Volume 11.3 and subsequently won him a prestigious writer's award. The Brisbane floods in 2011 were devastating for many golf courses and this was recorded in Volume 13.2.

The recovery of these courses affected by fire, floods and cyclones, as well as the personal toll these events have had, has been well documented in ATM and highlights yet again the resiliency of turf and the determination of turf managers to get things 'back to normal'.

These are just a small smattering of the topics that have attracted my attention and there are many other stories that are also deserving of mention if space allowed. The Australian Turfgrass Management Journal is a wonderful publication and is a credit to the AGCSA Board of 1999, inaugural editor Phil George and AGCSA chief executive Euan Laird for getting it started.

For the past 75 editions the magazine has grown immeasurably in its quality and production standards under the guidance of editor Brett Robinson with the assistance of art director Jo Corne. I'm sure I'm not alone in congratulating all involved with ATM over the years and I very much look forward to 100 more cutting-edge editions. Well done!



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Got it COVERED

While not exactly rivalling
the likes of Vanity Fair,
Sports Illustrated or Time
magazine, the covers
featured over the past
99 editions of ATM have
certainly been an eclectic
mix. Editor Brett Robinson
looks back on some of the
standouts and shockers.

ONE HUNDRED EDITIONS rom the rear ends of horses to a staffieridgeback cross named Jack, from fires to
floods, from the world's most recognised golf
course to an extreme close-up of John Neylan's
left eye, Australian Turfgrass Management Journal
has carried some absolute beauties and, let's be
honest, some dead-set shocking covers over the
past 99 editions.

One of the hardest aspects of any magazine production is coming up with a decent cover, one that not only looks striking but is also relevant to that particular edition. Being a publication that deals with turfgrass, it has been quite challenging over the years to come up with some eye-catching covers and on more than a few occasions Mother Nature, a turf manager's worst enemy, has unwittingly become an editor's best friend.

The advent of digital photography has certainly made the generation of cover shots a lot easier. In the early days of slide film you had an agonising wait to get the slides back from the developers during which time you prayed constantly that there would be at least one decent shot which you could use.

Above: A selection of some of the covers that ATM has carried over the years. Front and centre and one of the most striking was the cover of Volume 5.6 which illustrated that edition's feature story on the Warringah Golf Club pesticide spill

Now with the ability to review your shots instantly it's certainly a lot easier, but the main photographic principals of having the right subject matter, the correct composition, the right light, not to mention some good fortune, are still critical. So let's look back at some of the covers ATM has fronted with over the journey – very much a mix of the good, the bad and the, well, interesting...

THE GOOD...

Perhaps the most memorable and talked-about ATM cover is without a doubt the very first. The photo of a tiny green and golden bell frog measuring no more than 25mm perched atop a golf ball was a stunning image with which to kick off ATM's existence and such was its improbability that many thought it fake. Indeed, in his editorial in Volume 1.2, inaugural ATM editor Phil George wrote: "For those of you who are still wondering, the frog on the cover of the first edition was not dead, on drugs, stuck to the ball with pins or digitally enhanced. The photograph is 'legit'... and yes I agree it is a ripper."

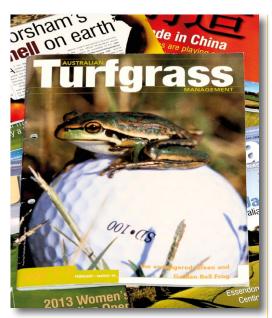
The man responsible for setting up and taking the photo was Trent Penman who at the time was working as a research student at the University of NSW. The university was undertaking a project at Sydney's Long Reef Golf Club, coordinated by The Australian Museum and supported by Taronga Zoo, to release the endangered green and golden bell frog. Taronga Zoo was investing in a captive breeding programme and came up with the idea of releasing the frogs at Long Reef given its safe headland location. In 1998 several thousand tadpoles were released on the course and the frog which would eventually star on the cover of Volume 1.1 was one of the first to emerge.

"It was a spur of the moment thing," recalls Penman, who now resides at the University of Melbourne as a lecturer of bushfire behaviour and management. "Being on a golf course there were plenty of golf balls around, we had one of the frogs in hand which we were measuring and I just thought it would make a great photo. So we put one on top of the other and away we went.

"We were just very lucky that we had a very photogenic and compliant frog and a beautiful sunny day at Long Reef. Fortunately no birds saw it sitting there and decided to come in for a closer inspection which has happened at other frog photo shoots! The photo was taken using slide film with a Canon EOS 500 camera and I reckon I took about 15-20 photos to get the one that was eventually used.

"The photo certainly generated a lot of interest and the cover created quite a stir at the time. I recall about six months later another golf club using a different frog species on a golf ball to try and get the same effect. I've moved several times since then and the original slides are probably buried at the bottom of a box somewhere, but it's certainly a photo I remember very well."

Not many covers since have come close to rivalling that striking first cover, but there have certainly been a few which have come close, albeit for very different reasons. Here's the pick of the bunch...



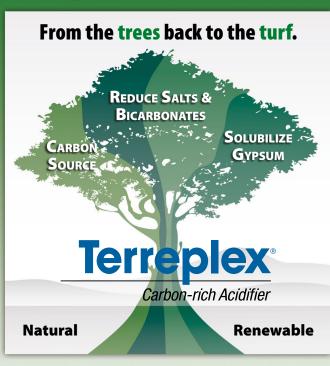
Volume 5.6 – Warringah: Not long after I arrived at the AGCSA, the Warringah Golf Club pesticide spill verdict was handed down by the NSW Land and Environment Court. It was the most significant story ATM has covered in its existence and as such a hard-hitting cover was called for given the long-term ramifications the case would have on the industry. The Poison Schedule label that was used certainly divided opinion, but it was simplistic, in your face and left you under no illusion as to the focus of that edition.



Above left: The first and very best

- Volume 1.1 featuring the green
and golden bell frog and (above) the
Warringah cover from Volume 5.6 ▶

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Volume 11 1



Volume 11.2

Volume 10.2 – Jack: The most fun cover to shoot came with the article on superintendents and their dogs in Volume 10.2. As the old TV saying goes never work with children and animals, but for two days I visited a number of courses in Sydney and had a blast trying to snap a number of superintendents with their four-legged assistants.

Castle Hill's dynamic duo of Vinny (RIP) and Marley put in strong cases to appear on the cover, as did David Warwick's Jack Russell Helmo, but it was gentle giant Jack, a gorgeous staffie-ridgeback cross owned by then Monash Country Club superintendent Marshall Howarth whom I couldn't resist featuring on the cover.

Volume 11.1 - Made in China: Australian superintendents are renowned the world over for their skills and abilities and in Volume 11.1 we took a look at those ex-pats making a mark in the burgeoning China golf market. This cover came about after the photos of Shadow Creek Golf & Country Club, home to ex-pat Aussie superintendent Darren Moore, were deemed too small to use.

That necessitated some quick thinking, so a Chinese flag was sourced from an image library and the words 'Made in China' (from the headline of the article) imposed over the top in Chinese characters. We utilised Moore's translator to ensure that the characters we used did actually translate to 'Made in China' and not something else.

Volume 11.2 - Black Saturday: Rivalling the previous cover in terms of colour, Volume 11.2 perhaps rates as the second best cover ATM has produced and full credit goes to AGCSA art director Jo Corne. The 2009 Black Saturday fires will be long remembered by many in the turf industry, in particular those at the Horsham and Marysville golf clubs. Given the widespread devastation, Jo came up with the idea of having the cover appear as if it had been scorched with a hole burnt through showing the lead article on Horsham underneath. A ripper!



Another bloody golf course: Not surprisingly, being the official publication of the AGCSA, plenty of golf courses have featured on the cover. While some take delight in ribbing the editor about featuring 'another bloody golf course' on the cover, the fact of the matter is that nothing beats a photo of a picturesque course taken at the right time of day.

The first course to feature on the cover was Joondalup Country Club (Volume 1.3), while the first overseas course was Bali Nirwana (Volume 1.5). Victoria and The Lakes hold the honour of being the two most featured clubs on the front cover. Victoria first appeared in Volume 4.5 in the lead-up to the ill-fated 2002 Australian Open and also graced the covers of Volumes 12.5 and 16.5. Likewise, The Lakes appeared in Volumes 3.3, 12.6 and 15.1.

Making two appearances have been Barnbougle (Dunes and Lost Farm), Commonwealth, Cottesloe, Kingston Heath, Lake Karrinyup, the MCG, Metropolitan, Moonah Links, Royal Adelaide, Royal Melbourne, Royal Queensland, The Australian and The National (Old Course). Royal Queensland had the unusual privilege of featuring on back-to-back covers in Volumes 4.3 and 4.4.

THE BAD...

On the flipside, ATM editors past and present have been prone to the proverbial brain fade and here are a few that raised some eyebrows, literally...

Volume 2.2 – John Neylan's left eye: Inaugural ATM editor Phil George liked to think outside the box a bit when it came to covers and he certainly did that with Volume 2.2. Leading with the news that the AGCSA had just seconded John Neylan to head the association's newly created technical division AGCSATech, George decided to splash a rather imposing close up photo of John Neylan's left eye on the cover, much to the agronomist's dismay. Not only was it an extreme close-up, the photo was also given an sickly yellow wash thanks to the wonders of Photoshop, for what reason only the magazine's then designers at Publicity Press will ever know. In the contents page George simply wrote as the cover explanation – 'John Neylan – up real close'.

Volume 6.1 – Riordan's River: Those who know former Melbourne golf course superintendent Michael Riordan well will hastily attest he isn't the industry's most photogenic man. However, by some fluke he managed to get his wistful-looking mug splashed across the cover of Volume 6.1 which featured an article on Patterson River Country Club. Needless to say when that edition hit the streets his phone, and that of the editor's, didn't stop ringing, but for very different reasons. While Riordan's mates took great delight in taking the proverbial (and still do more than a decade later), the editor was being lambasted. Ultimately that cover ended with an AGCSA Board decree that individuals were not to appear on the front cover of ATM!

CONTINUED ON PAGE 28



Volume 6.1



Volume 14 6

Right: The infamous John Neylan 'up real close' cover of Volume 2.2



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100TH EDITION

Right: The Volume 13.1 cover featuring Cottesloe Golf Club superintendent Simon Bourne

he big dry



Volume 15.5







CONTINUED FROM PAGE 26

ATM did break that rule, however, for all the right reasons in Volume 13.1. That edition featured Cottesloe Golf Club superintendent Simon Bourne whose remarkable journey back after his tragic holiday accident in Bali was simply inspiring. It was therefore a no-brainer to feature Simon on the cover. Volume 14.6 - Bowls: Simply a horrendous photo which I'll sheepishly own up to. What else can I say - it was early morning, the hybrid couch green was coming out of dormancy and I needed something quick as I had a plane to catch. Not even Photoshop could save me...

Volumes 3.3, 7.1, 9.6 and 12.3 - To hell with convention: There are many elements that go into making a good photo and you would think that the first consideration when choosing a cover image would be to make sure it is in focus! Take a look at the covers from Volumes 3.3 (The Lakes GC) and 7.1 (The MCG) and you will see that ATM doesn't always follow convention. Likewise, ensuring you don't take a photo directly into the sun and that there's enough light are also key considerations. Obviously that wasn't the case with Volumes 9.6 (The Australian GC) and 12.3 (The Glades).

THE INTERESTING...

As Phil George alluded to on page 10 in this edition, you have to be somewhat resourceful when taking cover photos. For instance, Volume 5.1 featured a close up of George's laundry tap to illustrate that edition's lead story on managing heat stress. Here are a few other examples of thinking outside the square and how having a macro lens as part of your photo kit can literally save your bacon!

- Volume 6.6 Kuwait: Similar to the aforementioned China cover, a lack of decent sized photos necessitated a similar approach. The map of Kuwait was actually a photo taken of an old atlas I had lying around at home.
- Volume 7.4 Floods: A photo taken of rushing water in a flooded creek in the Melbourne suburb of Macleod was used to illustrate the lead feature on the Gold Coast floods of 2005.
- Volume 7.6 Golf Ball: This was a very late night, last minute cover option as we simply had nothing else. This photo was staged on my kitchen table at 1am on the day we were due to sign off this edition. The golf ball is actually sitting on top of my wife's green soft toy frog while the green backdrop comes courtesy of an old green blanket I had stored in the garage that was taped up to the china cabinet. The things editors do!
- Volume 9.2 Drought: Another 'at-home' job. The water droplet which appears was taken in my kitchen sink using a macro lens.
- Volume 15.5 Apps: The macro lens again came in handy to help illustrate our article on turf apps. This photo is simply of the home screen of my iPhone 5 after rearranging the apps.



THE COSTLY...

Spending a day at The National Golf Club on Victoria's Mornington Peninsula is a rare privilege and in Volume 11.3 we featured an article on course manager Leigh Yanner. Needing a cover photo, Leigh allowed me to roam freely around The Old Course, but unfortunately it resulted in perhaps the most expensive cover in ATM's history.

Having just snapped a photo of the 5th green up near the old clubhouse, I foolishly attempted to hurdle some bushes. Easily clearing them, what I didn't realise was that the strap of the camera had wrapped around my leg and as I landed it ripped the camera out of my hand and effectively slingshotted it lens-first onto the cart path. Remarkably the lens didn't shatter but it ruined the focus and zoom mechanisms and bent the lens mount. A near four-figure repair bill was the end result along with a less than sharp cover photo.

Coming a close second in terms of cost was the single photo of Augusta National that we used on the cover of Volume 9.5 to accompany Dan Cook's article. Photo agencies charge like wounded bulls, especially for cover shots, and the professional golf photography company from which we sourced a photo of the iconic 13th at Augusta slugged the AGCSA a cool \$600 - and that was their discounted, not-for-profit association rate! Hey, it was Augusta!

At the other end of the cost spectrum, and deserving a special mention, is highly regarded Australian golf course photographer Gary Lisbon. A golfing tragic, Lisbon has always been extremely accommodating when it comes to the use of his photos and giving the AGCSA very good 'mates rates'. In recent years Lisbon has supplied ATM with no less than five covers, ranging from the stunning aerial photo of New Zealand's Cape Kidnappers which featured in 14.4 through to last edition's shot of the 11th at Cottesloe Golf Club.



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Stop the **Presses**

So how does each edition
of ATM get from the
editor's desk to the turf
manager's desk? ATM
editor Brett Robinson takes
readers on a journey from
his brain (a scary place) to
the printing presses.

ONE HUNDRED EDITIONS ne of the many questions I get asked as editor of Australian Turfgrass Management (ATM) is how each edition is put together. Having recently been threatened by the AGCSA hierarchy to give a presentation at the Australian Turfgrass Conference on such a topic, in the interests of self preservation and playing to my strengths (I'm a writer not a talker), this 100th edition has come at a timely juncture to explore such a process.

I'd like to portray it as highly technical, glamourous and cutting edge, but the reality is it isn't. Crafting each edition takes a lot of elbow grease from a small but very dedicated team at the AGCSA, together with the support of industry contributors without whom ATM simply wouldn't be the publication it is.

As long-time readers will be aware, ATM is produced bi-monthly – six editions a year – and over the years has fluctuated in size between 48 pages (plus covers) at its smallest (Volume 1.6, 1999) and 102 pages (plus covers) at its most (Volume 10.4, 2008). At present ATM hovers between 68-76 pages with the number of pages in each edition determined by the ratio of advertisers.

I arrived as editor just as Volume 5.3 (June-July 2003) was half way through production, with my first full edition being Volume 5.4 following the 2003 Australian Turfgrass Conference in Adelaide. By way of a background, I landed at the AGCSA with seven years' experience working as a suburban newspaper sports editor and magazine freelancer in New Zealand, as well as a content and production editor for sports websites in the UK. The role was initially part-time, however, when the AGCSA revamped its website in 2004 it became full-time.

At that time ATM was produced with the assistance of Melbourne-based design firm Publicity Press whom the AGCSA had partnered with when it first launched the magazine in early 1999. However, starting with Volume 7.1 (Feb-Mar 2005), the AGCSA Board made the decision to bring ATM production in-house and duly employed art director Jo Corne who had worked on previous magazine titles such as New Idea – somewhat of a radical departure! Together, Jo and I have produced all editions since, a total of 64 including this the 100th edition.



THE LIFEBLOOD OF ATM

So how does each edition get from the mess that is the editor's desk/head to the glossy publication you are currently holding? Well, as any communications guru will tell you 'content is king', so let's start with the black on white – the articles.

I'd like to say that the content for each edition is locked in months in advance based on a strict feature lists, but that's just incorrect. Each edition is very much a constantly-evolving work in progress with content changing right up until sign-off. A green foolscap folder on the editor's desk emblazoned, somewhat predictably, with the words 'ATM IDEAS' is the portal through which much of the content you see is generated. Ideas for articles come from a variety of sources; regular conversations and correspondence with industry practitioners - what us journos like to refer to as our 'sources' - industry press releases, researching on social media and the Internet and keeping a tabs on all industry-related news sources and publications, both here and overseas

The lifeblood of ATM is without doubt its contributors and were it not for those people who give up their time and put finger to keyboard, ATM simply wouldn't exist. ATM doesn't have exorbitant editorial budgets and therefore relies heavily upon the generosity of industry contributors to provide articles gratis. Thankfully during my time as editor I

have been absolutely blessed in this regard I have never been knocked back when approaching a superintendent or turf manager for an article. In the contents pages we list the contributors for each edition and while their names appear in small font, their contributions are massive.

Once a list of story ideas is generated, it's then a matter of contacting the prospective contributors, setting deadlines and, where applicable for the primary features, writing up briefs for them to follow. These briefs essentially contain a list of questions and topics that I'd like the article to answer/address. Some feature articles will require travel so this is factored in and conducted prior to the start of the production process. At the same time as content is being generated, AGCSA chief executive Peter Frewin is busy locking in advertising.

UP AND RUNNING

Once ads and content are confirmed a running sheet is produced in Excel which acts as the layout template for each edition. ATM feature articles can be anywhere between 1500 and 3000 words and are generally laid out in either two, four or six page blocks (including ads). All ads, with the current exception of two, are placed on right hand facing pages. The running sheet shows the position of each feature and ad and constantly changes depending on the size of the finished articles. It



A typical ATM running sheet which acts as the layout template for each edition, showing placement of features and advertisements

Opposite page, bottom: Southern Colour's Leroy Croft operates the \$5 million 10-colour Heidelberg Speedmaster XL 106 Perfector press which is used to print each of the 16-page sheets which are then mechanically folded





The pages of ATM are imposed onto printing plates (the white sheet in the foreground) which are then rolled onto individual cylinders. The four process ink colours – blue, red, yellow and black – are then fed onto the plate as it rotates. The plate in turn transfers this ink onto a cylinder which has a rubber blanket wrapped around it which in turn transfers the ink onto the paper as it passes under

The front and back covers are printed separately with a spine to hold the text pages. Prior to binding they are cut into singles

is not uncommon for there to be between 10-15 versions of the running sheet throughout the three weeks of journal production.

With a running sheet roughly finalised, the process of pulling all the content together starts. All contributed material, whether the association reports, Around the Trade snippets, regional course profile, research articles, columns (John Neylan) or feature articles submitted by superintendents and turf managers, is reviewed before a final draft is subbed up ready for layout. Photos, which are generally submitted along with the contributed articles, are then selected and where required adjusted in Photoshop.

As for the features I have to produce, invariably these will be left until last. When it comes to writing, every editor has a different approach and for me each feature is like a big jigsaw puzzle. I could count on one hand the number of ATM articles I have written where I have actually started with the first sentence and finished with the last. More often than not I'll write the last paragraph first!

Once I have transcribed any interviews and conducted whatever research is required, prior to writing the feature I map out a list of key section headers with bullet points outlining specific content to address. Once that's established, I'll just sit and type. Whatever ideas come into my head I'll just go with the flow. I could be working on one section when all of a sudden I get an idea for another section, so I'll stop and concentrate on that before going back. Once the sections are complete I'll then marry them all together to produce the finished article. Four or five proof-reads and alterations later and a final draft is ready for submission. Depending on the complexity, some features can be bashed out in a day, others in 2-3 days.

You may laugh, but I have learnt over the years to go to bed each night with a pen and notepad on my bedside table. When you are in that relaxed state just prior to falling asleep more often than not a gem of an idea will pop into your head. Jotting these down straight away means they won't be forgotten come the next morning and many a feature has

been saved by a moment of clarity just before lights out. I also write better under pressure. So even though I know I've got two weeks to write a 3000 word feature, I'll leave it to the last few days to knock off, much to the delight of the art director.

With the stories and photos collated, it's then the turn of art director Jo Corne to produce the layouts for each section. Using the latest version of desktop publishing software application Adobe InDesign, Jo imports the article text, photos, other graphical elements (e.g., logos, charts, figures, tables etc) and advertisements which are then arranged on the page. Once laid out, a proof is printed and returned to the editor who will then make the necessary corrections (e.g.: cuts or additions to text, photos resized or repositioned, grammar and punctuation).

Three weeks after the production process begins, all pages are signed off and then PDF'd in high resolution format (300dpi) and burnt to disc. A3 proofs of each page are also printed and along with the disc are sent to Keysborough-based Southern Colour which has been printing ATM since 2012.

ROLLING OFF THE PRESSES

Perhaps the most interesting aspect of the whole process, and where the magic really happens, comes once the disc of PDF spreads are supplied. Southern Colour 'rips' the PDFs and the pages are imposed in 16-page sections. A full proof of the magazine is then produced and sent back to the AGCSA within 24 hours so that content can be checked, colours of photos approved and the pages are in the right order.

Once the proof is signed off the next process involves manufacturing the printing plates. ATM is printed using the offset process which is based on the principle that if you have an oil-based ink and a clay surface, the two reject each other which results in the ink sitting on top of the clay substrate.

By and large the majority of printing is done in 'four colour process' whereby if you take different quantities and densities of ink – red (magenta), blue (cyan), yellow and black – you can create almost any colour, with the exception of white. When the file for ATM is created, Southern Colour breaks all the colours down on each page into these four process colours.

Printing plates are then fashioned, one for each of the process colours. A common size for a plate is close to 650mm x 910mm which equates to eight pages of ATM. When looked at under a microscope each plate is made up of dots. In very basic terms, the surface of the printing plate is made up of a material that attracts ink or rejects it, so where there is a dot this attracts the ink. Water is sprayed onto the surface of the plate to wash away excess ink.

The plates are then rolled onto individual cylinders in line on the \$5 million 10-colour Heidelberg Speedmaster XL 106 Perfector printing press. Ink is then fed onto the plate as it rotates, sticking to the dots. The plate in turn transfers this



ink onto a cylinder which has a rubber blanket wrapped around it, hence the term 'offset printing'. The paper passes under the blanket and as the blanket cylinder rotates it transfers the ink onto the paper. This is done for all four process colours. When the blue (cyan) dot combines on the paper with the yellow dot, green is created. Add red (magenta) and it turns to brown, and so on and so on.

All printed sheets come off the press as flat sheets (see main photo page 30) which are then stacked on top of each other. A small amount of powder is applied to each sheet as it comes off so that they do not come into contact as the ink is wet. Once dry, the sheets are mechanically folded into 16 page sections (eight pages each side of the sheet) with the pages imposed on the sheet in such a way that when folded they are in running order.

The front and back covers are printed separately with a spine to hold the text pages. As Southern Colour is able to print 16 pages per plate it imposes four of the four page covers (i.e.: the front cover, inside front cover, back cover and inside back cover) on each printing plate so that every revolution of the press delivers a total of four covers. These are then cut into singles.

The folded text sections are then collated on the binding machine. Glue is applied to the spine of the cover and the folded sections are then fed into the spine and compressed to ensure the glue can



penetrate and stick the pages together. Interestingly, more than two kilograms of glue is used to bind a typical edition of ATM. The magazines then travel around a conveyor belt to dry before entering the trimmer which cuts the journals square at the head, foot and foredge. They are then stacked and placed in boxes ready for delivery – voila, a finished edition of ATM!

A typical print run of ATM is usually around 4500 and increases to 5000 for the Australian Turfgrass Conference edition due to its inclusion in delegate satchels. A full run generally takes between 4-5 days and on average uses around 1.25 tons of paper. And here's another interesting fact – if you laid all the

Southern Colour's Jorge Florinda feeds ATM covers into the binding machine



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The folded text sections are collated on the binding machine. Glue is applied to the spine of the cover and the folded sections are then fed into the spine and compressed to ensure the glue can penetrate and stick the pages together



An example of the journal before it gets trimmed (right) and after (left)

Right: After going through the binding machine, the magazines then travel around a long conveyor belt to dry before entering the trimmer

Below: Southern Colour's Michael Cohen boxes up the completed copies of ATM ready for delivery



pages side by side of a typical ATM print run they would stretch over 71 kilometres!

AROUND THE WORLD

Once finished, Southern Colour boxes up and delivers the finished journals to Complete Mailing who execute the final stage in the process – the mailout. While the journals are being printed, the AGCSA supplies Complete Mailing with a full mailing list, artwork for the postal cover sheet and any advertising collateral (i.e.; brochures) that have been booked. Once collated, the journal/collateral is individually plastic wrapped before being placed in bins ready for transportation to Australia Post.

ATM has an extremely wide distribution and its readership is currently made up of:

- All AGCSA and NZGCSA members;
- All golf clubs in Australia;
- All STA members;
- Australian turf producers;
- State turf equipment technician association members;
- Racecourses and bowling clubs;
- Complimentary subscriptions to government agencies (local, state and federal), statutory authorities, turf education providers (TAFE, universities) and key media outlets; and
- All delegates to the Australian Turfgrass Conference.

ATM's circulation figures are audited every six months by the Audited Media Association of Australia. For each of these the AGCSA is required to produce full documentation in terms of printing and mailing receipts and mailing lists. Once these figures have been verified, an audit certificate is issued outlining these figures as well providing a geographical breakdown of the circulation.

Not surprisingly, NSW and Victoria rank numbers one and two respectively as the states to which ATM is most delivered to. This is followed, in order, by Queensland, Western Australia, South Australia, ACT, Tasmania and the Northern Territory. More than 250 copies make their way across to our New Zealand cousins while an additional 100 head

further afield to the Middle East, South Africa, the UK, Ireland, Italy, The Netherlands, Denmark, China, South East Asia, Mauritius, Mexico, Canada and, of course, the US.

YOUR JOURNAL

So there you have it. The edition you hold in your hand now has been through something very similar to the above process, so hopefully it has given you a bit of an insight into what the ATM production team goes through with each edition.

As already mentioned, ATM would not be the publication it is without the generous support of industry contributors and is always on the hunt for fresh content and story ideas. As Euan Laird says earlier in this edition, one of the reasons the AGCSA started up ATM was so that the industry would have a vehicle through which to promote the outstanding work of its practitioners.

I therefore vigorously encourage you to use ATM to tell your story and to promote the work you are achieving at your facility. I know it's not in the nature of superintendents and turf managers to outwardly seek promotion or highlight their achievements in a national forum, but just ask any of those who have had an article published and they will tell you it is a very rewarding process. It's also an excellent way to formally document the likes of course works, redevelopments or, in the case of natural disasters, chronicle the events and subsequent rebuild.

So, no matter what the idea, topic or subject, please do not hesitate to contact me – brett@agcsa. com.au or call on 0434 144 779 or (03) 9548 8600. Who knows, yours could very well be the next ATM cover story!







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Taking the next step



Following on from the excellent

workshop conducted as part of the recent Hunter Valley conference, John Neylan ponders what qualities an aspiring course superintendent needs to make it in the modern age of greenkeeping.

Above: The role of a golf course superintendent continues to evolve and it has become less about greenkeeping and more about managing people and resources

n a recent discussion with Australian Turfgrass Management Journal editor Brett Robinson about what my next column could focus on, he suggested I write about what I thought were the necessary skills for an assistant to take the next step into the role of a senior turf manager. This is a daunting task and I can only speak from my own observations of over 30-plus years in the turf industry, but when you drill down there are a few key qualities that those who have successfully made the transition possess.

After attending the recent 31st Australian Turfgrass Conference in the Hunter Valley, the VGCSA country seminar at Yarrawonga and the GCSAWA Margaret River conference, it reaffirmed how the role of the golf course superintendent continues to evolve. It has become less about greenkeeping and more about managing people and resources.

This clearly conflicts with why many people came into the industry and why others may wish to take on the role of golf course superintendent. It also raises the question as to whether the definition of a superintendent needs to be updated! As an industry, the position of the modern superintendent is struggling to establish its standing in the golf hierarchy while the responsibilities and the demands are ever-increasing.

So what do I think are the skill sets required by the next generation of superintendents and turf managers? The greatest test for any turf manager and what they will ultimately be judged on is the quality of the playing surfaces. However, the challenge is how the expectation is managed within the constraints of the particular facility. Managing and training staff, communicating at all levels and setting standards are the key roles as I see them. At many facilities you will no longer be directly managing the surfaces but managing and training staff to develop the surfaces to the standards you have established.

EDUCATION AND TRAINING

The discussion around education and training and what is appropriate for the modern turf manager is ongoing and there is little doubt that many questions are being asked as to whether the current turf courses fill today's needs. Is the Certificate III of Sports Turf Management enough to do the job of the modern turf manager?

After much thought it is clear to me that it lacks in many areas. It trains great greenkeepers but it does not prepare anyone for being a modern manager and all that it involves. Even the Diploma, while it has some management units, only partially prepares today's manager. In fact the units on management are the hardest to teach and the most difficult in which to engage students.

The current turf education system is somewhat formulaic and Gen Y wants everything on a platter. However, in my experience this does not develop thinkers or questioners which are important attributes for today's manager. At the AGCSA conference, MCG arenas manager Tony Gordon highlighted the value of an education which provides a broader array of subjects that challenge the mind. This is very much in contrast to the skills-based training that has served the industry so well.

Does there need to be another level of education that will develop prospective managers in the early stages of their career? If you are thinking about your career and where you want to progress to, you need to ask yourself, what does the job require as a minimum versus what skills you require to be good at your job.

At this time my thoughts are that the aspiring golf course superintendent or turf manager needs to undertake courses in;

- Management;
- Communication;
- Human resource management; and
- Budgeting.

While you may never be directly judged on your skills in these areas, they will assist you to do your job more effectively and hopefully be reflected in the quality of surfaces that are presented.

Ongoing training and personal development needs to be life-long. This should be built into your career and job description. The first thing you need to do is to undertake some self-analysis. Ask yourself what are your strengths and, more importantly, what are your weaknesses. It is also useful to reflect upon the differences between your current job and the next level you are working toward.

By identifying the additional responsibilities, qualities and skills required to successfully perform at the next level you can target specific training in these areas. Reading through the job advertisements on the AGCSA website will provide you with a good understanding of what skills are required.

Where you identify weaknesses or gaps, look for specialist educational programmes to improve these areas. When you have been trained in these areas look for opportunities in the work place to develop and hone these skills.

Other areas where assistants may lack experience include financial management and budgeting and interacting on a professional level with the club/organisation executive such as in committee meetings. To assist in filling the gaps ask your manager to help you learn more about these areas so you will have examples to reference when you conduct your job search.

COMMUNICATION SKILLS

Good communication skills and how you deal with staff, boards, members, customers, suppliers and peers is possibly the number one skill required. There hasn't been an AGCSA conference where this topic hasn't been discussed.

At the Hunter Valley conference David Bancroft-Turner ran his excellent workshops on political intelligence, changing behaviour and change management in the workplace. However, the majority of attendees still preferred to attend the agronomic sessions. Why is that? Was it boring? Made you uncomfortable? Too confronting? Well, get out of your comfort zone!

As a turf manager you will be regularly out of your comfort zone as you communicate your messages. A good communicator needs to be able to read the audience and convey the message



through a variety of means including the spoken and written word and visual representation.

Communicating at any level can be daunting if there is a key message to be conveyed. Training a staff member in a job, explaining to a member why some activity is being undertaken, delivering a report to a Board or committee or presenting to a members evening are just a few of the circumstances that you may find yourself in. How do you or would you handle it? Understanding your audience and treating them with respect is very important. Understanding your audience will determine how you tailor the message.

Practice being a good communicator. Put yourself out there and take the opportunity to stand in front of an audience and make a presentation. This could be in a number of ways; a new practice in the work place, a presentation at an association seminar or presenting your findings in a class



Taking the next step will be a big one. You just need to be as well prepared as possible to tackle the responsibilities that lay ahead

Good communication skills and how you deal with staff, boards, members, customers, suppliers and peers is possibly the number one skill required of a superintendent



Ongoing training and personal development needs to be life-long. This should be built into your career and job description

discussion (I can hear the butterflies churning from here!). Remember that bull**** doesn't baffle brains and a barrage of technical terms is not going to win the day. Concepts have to be clearly and precisely delivered, even when the concept is complex.

It is also very important to remember that practice makes perfect. Set yourself a practice exercise such as 'The Committee wants to know why the greens are soft and slow in winter'. See how you go putting together a discussion paper with clear headings and making sure that you outline the problem, the solution (absolutely essential), costings, timeframe for any works and potential disruption. The next part is to get one of your peers or mentors to review it and to provide some feedback. Maybe give it to someone that has little knowledge of the industry.

Below right: The greatest test for any turf manager and what they will ultimately be judged on is the quality of the playing surfaces

Below: Having empathy with staff and being honest with members and boards is an important quality in a good manager



OTHER QUALITIES

Mentors are very important to everyone. We all need confidantes outside of the workplace that can help guide us throughout our working life. In the turf industry, quite often an individual's mentor is the first senior manager that has influenced that person's career. It is also important to have mentors outside of the turf industry as well as within the industry.

The outsider can often have a more pragmatic view of the challenges you may be facing rather than a sympathetic but possibly unhelpful 'I know what you are going through'.

Where a person has worked and who they have worked with can have an influence on whether you will be considered a suitable candidate for a new job. At the high end facilities employers are often looking for experience or an understanding of the requirements of such a facility. Gaining the necessary experience may involve moving to another facility so that you can obtain as much knowledge as possible, particularly if you have ambitions to work at the elite end of the industry.

Where you have a job in a secondary role at the best facility, sometimes it is better for your self-development to move elsewhere where you can gain experience under more demanding or different circumstances. In years gone by many budding golf course superintendents took the opportunity to move to a country facility so that they could be the boss and hone their skills in budgeting and dealing directly with management and members.

Honesty and empathy are key qualities of the best senior turf managers. Turf management provides many opportunities for things to go wrong including those that you can't control. When circumstances go awry it is important to be honest with your employers. As important is honestly analysing the how, why and where things went wrong and how you can implement strategies to avoid future reoccurrences.

Having empathy with staff, members and boards is an important quality in a good manager. In particular understanding the concerns of the customer and how you deal with it in a respectful manner. For golf course superintendents there has often been the debate about whether they need to be a golfer. From my observations, having some interest in the game does provide greater empathy for golfers' concerns.

The next step will be a big step. You just need to be as well prepared as possible to tackle the responsibilities that lay ahead. $\rlap/$





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Royal Canberra's Crystal Bluelinks creeping bentgrass fairways have been quick to establish and are providing an excellent surface that allows the ball to sit up for play. Pictured is the 7th



The first stage of the
Royal Canberra Golf Club
redevelopment is all but
complete. ATM catches up
with course superintendent
and AGCSA member
Andrew Boyle to look back
at the reconstruction of the
first nine holes and some
of the lessons learned as
the second stage of works
get underway.

n Volumes 16.6 and 17.2, Australian Turfgrass Management Journal has tracked one of the most talked-about course redevelopments currently underway in Australia. Last July, Royal Canberra Golf Club embarked on the first of a three-stage overhaul under the auspices of designers Ogilvy Clayton Cocking Mead with holes 1-9 the first to be transformed.

In the last update carried in Volume 17.2 (March-April 2015) Stage One works were well progressed with weed control, scheduling and the difficulties in turf establishment due to summer storms among some of the challenges for course superintendent Andrew Boyle and the SJM construction crew.

Since then the rest of the front nine holes have been seeded and established with only minor repairs and rough areas to be seeded remaining. Boyle reports that all holes are coming along really well with the bunkers the only key areas left to be completed with the ongoing installation of the Kustom Bind drainage system.

"At this stage we have all greens, tees, fairways and most of the rough seeded," says Boyle. "We have a few areas in the deep rough that still need to be seeded after we have spread material left over from the drainage works. We have just five bunkers remaining to have Kustom Bind installed and then it is minor patch up work on the fairways and roughs to get the playing surfaces to the condition we would like them to be in.

"We are still suffering a little from the storm damage over the summer period when we just didn't have time to get back to all areas that were damaged and as a result there are some minor ruts in some fairways that need to be topdressed out. We have only recently gained a permit from the APVMA to spray perennial ryegrass out of the creeping bentgrass fairways after summer storms washed the ryegrass seed out of the rough and across several areas."

GROW-IN

The first stage was broken up into three work zones with Zone 3 works (holes 1-3) signalling the conclusion of the front nine redevelopment. Final shaping of the last three greens and tees was completed on schedule on 18 February which allowed for the 1st, 2nd and 3rd greens and tees to be hydroseeded that week, ensuring optimum growing conditions before the winter chill set in.



The following week the surrounds of those tees and greens were also hydroseeded with drainage starting on the remaining fairways. Drainage installation was carried out by Royal Canberra staff and took about a week per hole to complete. The four remaining fairways were then blecavated and prepared for seeding toward the end of March. Right on cue, the weather turned and many of these areas were washed away. In the end, the final seeding of the fairways didn't take place until mid-April after restoring the top soil to its original location and relevelling.

With grass seed eventually down in the right places, the race was on initially for germination and then growth before Canberra's renowned winter set in. Fortunately for Boyle, this year the first frosts were a little later than normal, not coming until mid-May, however when the first one did hit it was a beauty – -5°C! This was followed by average low temperatures of -1°C for June and July and 1°C in August which made growing turf a real challenge.

As a result, turfing damaged areas became a priority with the 1500m² Crystal Bluelinks creeping bentgrass nursery utilised to ensure a suitable coverage across the fairways. The 500m² perennial



ryegrass nursery was also utilised, mostly for repairing major washouts and bunker lips that hadn't established as well as Boyle would have liked.

"So far disease pressures have been minimal," adds Boyle. "We have been keeping a close eye on the turf and upcoming conditions and in late autumn we had a little dollar spot appear, but with a change of weather it was all but gone within a few days. We have had some minor damage from pythium and we sprayed Banol in those areas with great results. We are holding a little stock up our sleeve just in case we notice disease in the short cut areas, but so far we have been pretty lucky with turf health."

MEETING EXPECTATIONS

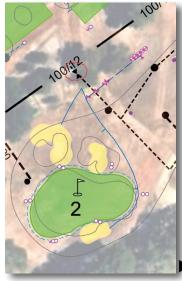
As has been mentioned in past articles, the most talked-about feature of the Royal Canberra redevelopment is the use of creeping bentgrass on fairways (Crystal Bluelinks) – a first in Australia – as well as an untried creeping bentgrass variety (Pure Distinction) on the greens. While there has been plenty of discussion throughout the industry whether such a grassing strategy will work in the long-term, to date Boyle and the club are very pleased with their decision to go *Agrostis*.

"The move to creeping bentgrass varieties for fairways obviously got a few people talking but so far we are extremely happy with the way it has performed," reflects Boyle. "With the knowledge that the club's preference for the course was a coolseason species, we did our homework and came up with creeping bentgrass as providing an ideal surface for the fairways that suited our climate and site conditions.

"The Pure Distinction has been really pleasing on the greens and the more it matures the finer the leaf gets. From what we have seen, given that it's not in play yet, the ball roll has been excellent and it looks as though it will provide a faster, smoother surface than our older greens by a long way.

"Its colour gives us a great contrast with the fairways and establishment has been very uniform throughout the greens that have been seeded so The move to creeping bentgrass varieties for fairways has had many within the industry talking, but Boyle says so far Royal Canberra is extremely happy with the way it has performed. Pictured is the new-look 5th

Architect drawing showing the new 2nd green and bunkers (shaded area) compared to the old locations (shown as outlines)





 Above right: The 9th hole enduring another frosty Canberra start, -4°C

Above: The Pure Distinction creeping bentgrass has been really pleasing on the greens and the more it matures the finer the leaf gets

Below right: The front nine holes will be opened in stages from late September. Pictured is the 4th

Below: The redevelopment has enabled the inclusion of a new short course (gold tees)



far. I look forward to seeing how it handles the traffic once we open up the initial four holes for play.

"Crystal Bluelinks creeping bentgrass on the fairways was bit of a left field selection really, not so much for the bentgrass species but for going with creeping bentgrass on the fairways, which is a first I believe in Australia. Again, we did our research and spoke with the seed companies as well as reading the NTEP reports and we are very confident that it will live up to expectations with the results we see on the course so far. It has been quick to establish and has been very good in providing a surface that allows the ball to sit up for play."

One very positive point for Boyle that has come from Royal Canberra members following course tours and information nights is that not only are they extremely happy with the work conducted to date, they are also very mindful of not opening up the new holes too early. As a result of reviewing the condition of each hole and the requirement for work zones in Stage Two (holes 10-18), it has been decided to stage the opening of the new-look front nine holes in groups, allowing additional grow-in time for those holes that were seeded just prior to winter.

As this edition of ATM was going to print the plan was to open holes 6-9 and close holes 10-13 from 28 September. From 2 November members will play holes 3-9 as well as 16 and 18 which will give the construction team additional holes to work with, with the full opening of the front nine holes pencilled in for early December. Such a plan will allow three clear work zones for the start of Stage Two works to be undertaken over the summer months.

LESSONS LEARNED

Boyle is no stranger to course construction and redevelopment throughout his career and just as with other projects he has been involved with there have been plenty of lessons learned during the first stage of works. With most of his construction experience being on sand-based courses, including the likes of Barnbougle Dunes and Royal Melbourne, Boyle has had to adjust to the specific requirements of working on a clay-based course.



"When you're on a clay course there needs to be a different approach to the way tasks are carried out," reflects Boyle. "We installed drainage and silt fencing where required as part of our environmental management plan, but I probably would look at doing both differently next time as a lot of the damage was caused by these fences holding too much water back. In saying that they did the job they were meant to and didn't allow topsoil to wash into the drainage system.

"One of our delays with seeding fairways was due to a delay in having drainage installed in those areas, as well as having truck movements on one of the fairways stockpiling sand for the greens and tees. In the next stage we are aiming to be ahead with the drainage installation so that when we get to the other end of the project, we are able to turn the surfaces over and begin preparations as close to earthworks being completed as possible.

"I guess the key point is, however, no matter what you do as a turf manager you are never able to beat Mother Nature. We tried several methods to prevent washouts and I'm still looking for the ideal solution if there is one. The use of different grades of hydromulch, drainage socks and turf cloth have all been utilised with varying results.

"Although Canberra is between Melbourne and Sydney, delivery of products can also be difficult with some suppliers and couriers, so it's important to ensure that any orders that need to be made for construction are made promptly when planning. Even minor delays with a product can throw the schedule out and may cause subsequent delays down the line."

CARRY ON

As mentioned, Stage Two will focus on holes 10-18 with preliminary works already underway as this edition of ATM was going to print. It is hoped that all Stage Two shaping works will be completed by mid-February. This next stage will include a couple of significant features which, like the grassing strategy, will no doubt become talking points.



One of the biggest changes will be the inclusion of a water carry on the 14th. Currently a straightaway par four, the 14th runs along the shoreline of Lake Burley Griffin with the lake to the right. The existing tee will be rebuilt, but there will also be an additional tee constructed further right toward the existing 13th tee that will force a drive over the lake. This carry will also feature a 6000m² mass planting of native shrubs that will be maintained in a structured formal design which in time will become a signature feature of the back nine.

The inclusion of a creek crossing three holes has also been a modification to the original OCCM concept plans. This creek will begin in an old, dry creek bed to the left of the 16th tee carry and run across the 16th, 15th approach and the 14th tee area, adding strategy to the 15th hole which is a short par five. As well as strategy, the creek will carry water to the lake as part of the drainage system and runs through a natural water course picking up drainage outlets from tees, greens, fairways and bunkers in the area.

ACKNOWLEDGEMENTS

ATM wishes to thank superintendent Andrew Boyle and Royal Canberra Golf Club for their assistance in compiling these redevelopment updates. Previous articles appeared in Volumes 16.6 ('Going Agrostis', pg 14-20) and 17.2 ('Green-up in the capital', pg 40-43).





The new Royal Canberra bunkers have had Kustom Bind installed

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Influencing without authority

atching the 2015 U.S. Open at Chambers Bay recently I was struck by the variety and colours of the clothing used by the golfers. Some very sombre, some with checks, some with pastels and others with outrageously bright colours that many traditionalists would not approve of. The clothing worn is driven by choice. Sometimes it is due to what may be available but bought originally because of our likes and dislikes, or, as some may call it, our preferences.

We have preferences for lots of things – the car we drive, the friends we have, the type of holidays

We have preferences for lots of things – the car we drive, the friends we have, the type of holidays we go on, the way our houses are decorated, the food that we eat. Our personality is like this. We have preferences for:

- The way we like to interact with others;
- The way we like to make decisions;
- The way we like to take in information;
- The way we like to process this information; and
- The way we like to communicate.

Most, if not all, of these preferences are unspoken. What's amazing about human beings is that all of us (from a DNA perspective) are very similar with the only major differences linked to these unspoken preferences (you have noticed people are different right?) The key question is what are these differences and how do they impact on my ability to influence others, particularly where I have little or no authority?

Influencing others where you have little or no authority will only work if you have two tools – a gun or your ability to recognise another person's preference and to be able to flex your own communication. We will focus on the latter!

This article will therefore show you:

- What these unspoken preferences are;
- What the four major personality preference; types that exist throughout the world;
- How to 'spot' these four different preferences;
- Show you how to change your communication; preferences to influence others.

But before we proceed – a health warning! There follows a stereotyping exercise which can be hazardous to your well being! People are more complicated than putting the whole human race into one of four categories. However, the model – which we call LEAD – provides us all with a conscious process and tool that we can use to systematically influence others without them knowing (including your wives and children – trust me I've been using it for years!)

LEAD-ING THE WAY

The graph on the opposite page shows two different axes which combine to give us the four major categories that help us to answer the question, 'Why do people do the things that they do?' The North axis relates to how 'thought-full' people are. For example, these types of people when faced with a problem would prefer to think about it, sometimes for a long period, before discussing with others.

The South axis is the opposite where the 'talk-full' person has a preference for talking about the same problem, before thinking or processing the issue. Ever been faced with a 'talk-full' person recounting an issue in their life where you have been thinking to yourself 'Why are they telling me this?' Well, now you know! They are telling you as it helps them to process and answer their problem. They 'give' it out to the world to see what they get back. The process involves talking first that helps the person to think. The opposite is true of the North axis. Here it is thinking first, before talking. Imagine a partnership or marriage where each person is an extreme example of both, will this be heaven or hell?

The left-hand axis is related to what we call 'concealing'. People have different levels of

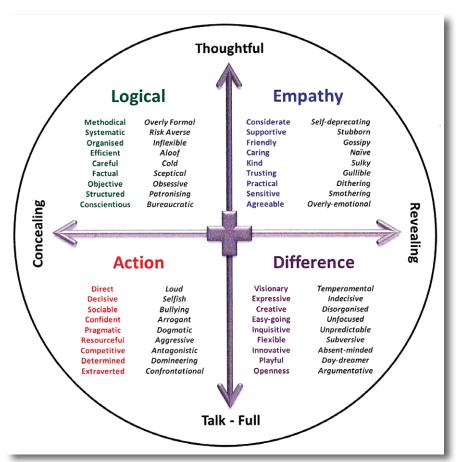
At the past two Australian
Turfgrass Conferences
David Bancroft-Turner has
brought his own unique
take on the machinations
of club politics and
HR management. Here
he looks at the various
personality preferences that
all human beings exhibit
and how by changing the
way you communicate
you can influence people
without their knowing.

comfort (or preference) around what they reveal of themselves. The 'thought-full' person typically conceals personal information because the world is about data, process, logic and quality. The 'talk-full' person typically focuses on the task at hand, getting the job done, speed and activity.

The right-hand axis is related to 'revealing'. The 'thought-full' person will typically talk of their concerns, what may be troubling them, their needs and their fears. Whereas 'talk-full' people will typically divulge information to what could be, might be, the future or their view of the possibilities.

Plotting these two axes against each other reveals four very different types of individuals - we call them Logical, Empathy, Action and Difference or what we refer to as the LEAD Model. All are valid and are what we call a 'preference'. People can of course be all at some time but a good comparison is to think of a bank of radios all playing different types of music - rock, jazz, classical and country. For most people one of these radio stations is turned up quite loud which means it drowns out the other three. A 'preference' means that when you are in a comfortable place in your life, when times are good then many of us will have one of these quadrants that we call home. That is, we feel comfortable there.

Difficulties arise for us all when we seek to influence others who have a different preference. Have a look at the typical positive attributes (those listed on the left under each of the four preferences).



The LEAD (Logical, Empathy, Action, Difference) model, with positive attributes of each of the four preferences on the left and weaknesses on the right

PRACTICAL TIPS ON HOW TO INFLUENCE SOMEBODY WITH...

LOGICAL PREFERENCES

DO...

- Send agendas and detailed information in advance. Stick to the agenda and cover each item in sequence.
- Think before you speak and then speak confidently. Stay calm, composed and objective when presenting.
- Talk about your specific facts, thoughts or assumptions. Describe specific goals, standards, measures or metrics.
- Emphasise rigor in planning or data gathering activities. Let them know early about any changes or problems
- Use factual, verifiable evidence to support a proposal. Give them 'check lists', Gantt charts and flow diagrams.
- Use procedural descriptions (e.g. 'it is a 3 step process'). Talk about 'iterative' as opposed to 'radical' changes.
- Use a considered and quietly measured tone of voice. When asking a question, be patient for their answer!
- Be clear on what you expect them to deliver/measure. Summarise to
- confirm you understand what they said.
- Send detailed notes after meetings listing agreements.

DON'T...

- Physically invade their space, use 'touch' contact, be overly emotional or use subjective statements.
- Demand an immediate answer to new topics or issues or say they are 'slow' when they are only being thorough.
- Act in a dictatorial or threatening way towards them or appear bored or be dismissive of their need for detail.
- Be inconsistent or vague in what you 'say' and 'do' or give generalised or subjective feedback or information.
- Highlight any factual errors they make to 'score points' or use their 'unhelpful' behaviours to describe them.
- Rush or 'make up' presentations as you are speaking or make generalised statements without supporting data.
- Expect them to show overly emotional excitement or ask if they are 'happy' about your proposals or ideas.
- Be concerned to ask them for more time or information. Don't unexpectedly 'drop in' just to make general small talk.
- Use emotive words or unsubstantiated generalisations.

EMPATHY PREFERENCES DO...

- Demonstrate 'active listening' by letting them talk. Disagree if they say they are being 'silly' or 'emotional'
- Take their feelings, emotions and concerns seriously. Recognise their need to take your 'emotional pulse'
- Provide practical solutions that minimise disharmony. Ask for their advice and especially 'help' and 'support'.
- Sensitively challenge if they start 'wallowing' in self-pity. If they seem upset, but say they are 'ok', take time out.
- Value and genuinely recognise their contributions. Give them space to describe and explore their feeling.
- Show concern and sensitivity over 'people' issues. Talk about the client or people benefits to be achieved.
- Speak in a gentler, quieter voice and be friendly. Lean forward, smile and nod agreement more often.
- Accept they may need to consult with their colleagues. Adopt a collegiate, consensual and inclusive approach.
- Be open, honest and follow through on your promises.

DON'T...

- Tell them not to be so 'emotional', 'irrational' or 'upset' and don't ignore, belittle or dismiss their concerns or worries
- Put 'facts' before 'feelings' or 'logic' before 'intuition'. Never ridicule/ highlight their sensitivities in group situations.
- Treat them as less than equal, fragile or uncaring. Don't be aggressive, clinical, cold or detached towards them.
- Suggest people are an expendable 'human resource' or try to 'fix' or intellectualise their feelings and emotions.
- Deliberately antagonise, threaten or talk loudly at them, dominate or repeatedly talk over them in discussions.
- Stop them from standing close, within 'touch' contact or ignore their concerns if they become silent or stubborn.
- Use their 'unhelpful' behaviours to describe them. Don't suggest solutions that exclude co-operation/inclusion.
- Avoid talking about or hide your emotions from them. Don't assume that their silence always equals their consent.
- Treat them indifferently, impersonally or insensitively.



Knowing the dos and don'ts of how to communicate to people with different personality preferences takes practice but will have a major impact on your ability to influence others at your club

You may recognise yourself from this list, or perhaps two quadrants are equally strong. Where these behaviours are overused or used in the wrong situation, they then become weaknesses (those listed on the right under each of the preferences).

Looking at the typical behaviours for each of the quadrants, it is easy to see that the 'way' in which each type prefers to be influenced is very different. Examples:

- The Logical preference: needs information, uses logic, demands accuracy and quality;
- The Empathy preference: needs to be inclusive, uses relationships, demands involvement and consideration;
- The Action preference: only needs summary information, uses speed, demands activity and clarity; and
- The Difference preference: needs options, uses creativity, demands excitement and difference.

Thinking of real or fictional people can not only provide some light relief but also a good handle to the stereotypes. For example:

- Logical: Bill Gates, Spock from Star Trek, Phil Mickleson?
- Empathy: Nelson Mandela, Doc from Star Trek, Ernie Els?
- Action: Donald Trump, Captain Kirk, Tiger Woods?

Difference: Richard Branson, Scotty from Star Trek, Seve Ballesteros?

Let's get back to the practical application of this model. Each of the four preferences need to be influenced in different ways and these are shown in the two tables on the previous page (Logical and Empathy) and below (Action and Difference). You will need to practice how to spot the four preferences but for many people it is relatively easy to categorise them based on your previous experience of how they behave.

The various dos and don'ts require practice but will have a major impact on your ability to influence others at your club. The good news is that you have the rest of your life to practice!

ACKNOWLEDGEMENTS

The LEAD model has been created by Dr Wayne Thomas. For further information you can contact him on wayne@matrixtc.com or David Bancroft-Turner at dave@matrixtc.com. If you would like to confirm your own or others preferences then you can complete the LEAD model diagnostic questionnaire. The results will be sent in the form of a booklet that provides comprehensive information on how to influence the four types mentioned in this article. This can be obtained from www.matrixtc.com. David Bancroft-Turner will be returning to the 32nd Australian Turfgrass Conference in Melbourne. \(\pm\)

PRACTICAL TIPS ON HOW TO INFLUENCE SOMEBODY WITH...

ACTION PREFERENCES

DO...

- Initially agree that 'something' must be done 'quickly'. Use a lot of 'action', 'doing' and 'fixing things' words.
- Appear enthusiastic, positive and 'animated'. Speak slightly faster and more loudly than normal.
- Be brief, to the point, using simple words and phrases. Use expressions and gestures to show your emotions.
- Repeat (i.e. 'bullet point' summarise) what they say. Respond immediately to their direct questions
- Expect them to take seemingly unnecessary 'risks'. Expect decisions based on limited or subjective data.
- Maintain eye contact and agree you will take 'action'. Emphasise speed, simplicity, results and 'winning'.
- Send one page executive summaries, agendas or notes. Keep them updated with 'brief' progress reports.
- Give them motivational (+) feedback (me, Me, ME!) and position developmental (-) feedback to their results.
- Recognise their achievements in front of others.

DON'T...

- Argue with them because that's often what they want! Don't ask for more time, facts or figures to make a decision.
 - Talk at length about detail before you give a summary. Don't agree with them simply to avoid conflict or an issue.
- Expect them to hold a grudge after an outburst or rant or be surprised when they make subjective statements.
- Challenge their authority or position in a group context. Don't be offended when they 'tell' you exactly what to do!
- Expect them to have read the detail prior to meetings and don't take offence when they send you 'one word' emails.
- Talk about problems without suggesting solutions or give them ambiguous answers or complicated ideas.
- Provide them with too many options to choose from or waste their time, enthusiasm or energy with 'trivia'.
- Be shocked if they use 'blunt 'or 'brusque' language. Don't allow 'robust debates' to cause you to sulk or argue.
- Accept rudeness or bullying from them give feedback!

DIFFERENCE PREFERENCES

DO.

- Let them express themselves, however rambling. Take an interest in, and encourage, their creativity.
- Accept their opinions might change and be flexible. Be positive about their 'potential' solutions or ideas.
- Speak quickly using divergent, not convergent words. Appear friendly, relaxed and informal when presenting.
- Think laterally and obscurely when brainstorming. Recognise their need for individuality and non-conformity
- Offer to sort out, or help them with, points of detail. Give them several different options to think about.
- 'Pick and mix' items on an agenda to talk about. 'Paint a picture' of your plan or idea in words or images.
- Record commitments so they can see what was agreed. Set them deadlines long before a delivery date or time.
- Encourage them to work on cross-disciplinary projects. Involve them in 'visioning' or future planning activities.
- Give them feedback if they are confusing you or others.

DON'T...

- Take offence when they finish your sentences. Don't give them only one option, solution or alternative.
- Challenge them with rules, policies or procedures. Don't worry when they act irresponsibly or impulsively.
- Appear rigid, fixed or dogmatic in your views or be too formal, structured, clinical or detached.
- Expect them to deliver exactly what they promised or demonstrate anger when they miss short deadlines.
- Get angry when they deliberately avoid 'boring' routine or patronise, 'micro-manage' or call them 'lazy' or 'idle'.
- Stop them from contributing creatively 'unusual' ideas. Don't be surprised if they argue against or change their views.
- Expect them to see or think of things in absolute terms or always expect to follow their random train of thought.
- Label them as 'fantasists', 'theorists' or 'day-dreamers'. Don't take offence if they use dramatic or colourful language.
- Be annoyed when they jump to subjective conclusions.











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Dr Sabine Nooten,
Professor James Cook
and Associate Professor
Sally Power from the
Hawkesbury Institute for
the Environment, Western
Sydney University, reveal
the findings from a twoyear study which aimed
to audit biodiversity and
carbon stocks at 15
Sydney golf courses.

n 2013, the Greater Sydney Local Land Services (GSLLS, formerly the Hawkesbury Nepean Catchment Management Authority) launched a joint research project with Western Sydney University (WSU) with the aim of auditing biodiversity and carbon in Sydney's golf courses. This research project, titled 'ABC-Golf: Accounting for Biodiversity and Carbon in Sydney's golf courses' was part of the wider Teeing-off Carbon Connections program, which has sought to improve conditions for native vegetation and habitat for wildlife on golf courses and council reserves in the Greater Sydney area.

Funded by the GSLLS, the two year project kicked off in September 2013 with three specific aims:

- To audit biodiversity and carbon stocks in a range of golf courses in the greater Sydney area:
- To relate biodiversity and carbon stocks to course characteristics and habitat types; and
- To develop a spreadsheet-based toolbox for course managers to estimate their carbon stocks.

Fifteen golf courses across the Sydney participated in this study. These included relatively young (42 years) and older (111 years) courses and varied between 35 and 92 hectares in size. Geographically, the courses ranged east-west from the coast up to the Blue Mountains (5m-947m elevation), and north-south from Garigal National Park to the Cumberland Plain. Those courses and superintendents who participated in the study were:

- Camden GC (Shane Herring)
- Leura Golf Club (Matt Robinson)
- Liverpool GC (Mark Schroder)
- Long Reef GC (Peter Donkers)
- Monash GC (Paul Gumbleton)
- Muirfield GC (Peter Watts)
- NSW GC (Gary Dempsey)
- Penrith GC (Joshua Lockett)
- Roseville GC (Mark O'Sullivan)

- Ryde-Parramatta GC (Shaun Probert)
- Springwood CC (Nathan Ball)
- St Michael's GC (Russell Fletcher)
- The Lakes GC (Anthony Mills)
- Wentworth Falls CC (Dean Pujic)
- Woodville Golf Club (Chris Rae)

SURVEYS

The biodiversity surveys focused on three main groups of organisms – plants, birds and ants. These all perform important ecological roles in the environment and are commonly used as indicators of wider biodiversity patterns.

Plants shape habitats and provide living space for terrestrial animals, ranging from tiny insects to large mammals. Birds are the best-established vertebrate indicator group and are of considerable public interest and ecological importance. Ants, often used as indicators of wider invertebrate biodiversity, were selected as our representative insects. They are abundant and vital for the healthy functioning of ecosystems; for example, they contribute to nutrient distribution and soil aeration in the wider landscape.

Our research team carried out biodiversity surveys in different habitat types on each golf course, to capture the variety of species associated with both playing and non-playing areas. Woody areas, such as remnant or restored habitats, boundary and between-fairway vegetation and also grassy areas – fairways and areas surrounding water features – were included.

For each habitat type, we selected four locations per course to record plant species in large rectangular plots (10m x 40m). We also collected ants near to these plant survey areas by using minced meat baits placed on the ground in small containers for a few hours in the morning. Finally, birds were surveyed at 16 randomly chosen points across the entire course. The surveyor counted all visible bird species for five minutes at each of these points, in the early morning. Bird surveys were

The Lakes Golf Club (pictured top)
was one of 15 golf courses across
the Sydney region to participate
in the 'ABC-Golf: Accounting for
Biodiversity and Carbon in Sydney's
golf courses' research project

carried out twice on each golf course, first in late spring and then again in late summer.

The above- and below-ground carbon stocks were also assessed in these same habitat types. Above-ground carbon was assessed based on the standing plant material, including trees, shrubs and low stature vegetation, while below-ground carbon equated to the stocks in soils.

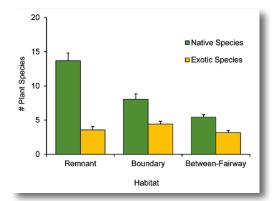
Our researchers measured tree diameter of every individual tree in the same rectangular plots used for the biodiversity survey. Meanwhile, the diameter and height of shrubs and low vegetation, such as grass and forbs, were measured in smaller 2m x 2m square plots. Finally, we extracted soil cores (up to 30cm deep) from the same habitat types in playing and non-playing areas as described above.

BIODIVERSITY ON GOLF COURSES

Vegetation on golf courses can vary greatly – from planted and highly managed areas to those with more natural vegetation or even native bush remnants. These vegetated non-playing areas can provide valuable refuges for local and/or threatened plant communities, which, in turn, can offer valuable habitats for a variety of animal wildlife.

Our project identified a total of 438 plant species across the 15 golf courses surveyed, averaging 62 species and ranging from 28 to 92 species on an individual course. Overall, the golf courses surveyed had more native (62 per cent) than exotic (38 per cent) plant species, with native plant species representing between 46-84 per cent of the species at individual courses.

Areas of remnant vegetation were associated with the greatest number, and proportion, of native plant species (Figure 1, below), indicating that inclusion of remnant and/or restored habitat within golf courses can provide reservoirs of native plant biodiversity, which are particularly valuable in urban settings. Managing non-playing areas for native plants not only increases local biodiversity but also has aesthetic value, with flowering species enhancing the landscape throughout the year.



Birds are often prominent on golf courses. The open, park-like fairways and the woody patches of boundary vegetation and remnant bush provide valuable habitats for many different species. These,

as well as water features such as ponds and lakes, can also provide refuges for species that are increasingly pushed out of expanding urban areas in the surrounding land matrix. In this study, we counted 8660 individual birds, belonging to 97 species, across the 15 golf courses. The number of species on individual courses ranged from 24 to 52, averaging 34 species.

Many birds have very specific habitat requirements, so that a large diversity of habitat types (woodland, grassland, water etc.) tends to promote high bird species diversity overall. Some birds are habitat specialists and therefore found in only one particular type. For example, remnant native vegetation harboured 15 per cent of species – predominately woodland birds – and water features harboured 10 per cent of the bird species – predominately waterbirds.

Habitats that can support a high diversity of birds will also support many other smaller organisms that are much harder to see. In this way, birds can act as valuable indicators of wider, course level biodiversity. Birds are also particularly colourful and popular animals, and many golfers are familiar with, and appreciate, a range of bird species.

Several golf courses harboured notable bird species. The Australian reed-warbler, which requires reed beds for nesting/foraging, is typically associated with well-managed water features. Other waterbirds recorded included several species of cormorant, the Australasian grebe, the white-faced heron, and many ducks, such as the chestnut teal and hardhead.

Larger bird species with sizable home ranges, such as the brown goshawk, the black-shouldered kite, the yellow-tailed black-cockatoo and the superb lyrebird were also observed on several golf courses. While all of these species almost certainly also require larger areas of bush outside of the golf courses, it is encouraging to see them using the non-playing areas as feeding grounds. The satin bowerbird was also seen at several courses and is a bird that prefers wooded environments. The large



Dr Sabine Nooten presents findings from the project at the Teeing-off Carbon Connections program launch at Cromer Golf Club in June

Far left: Figure 1. Average number of plant species per habitat for all golf courses surveyed. Error bars represent one standard error of the mean

Below: An example of remnant habitat on a golf course. Research clearly showed that areas of remnant vegetation were associated with the greatest number, and proportion, of native plant species



The project examined relatively young (42 years) and older (111 years) golf courses which varied between 35 and 92 hectares in size.

Pictured is Ryde Parramatta

Below right: Figure 2. Average number of ant species collected from five habitat types. Error bars represent one standard error of the

Several golf courses harboured notable bird species including the white-faced heron (bottom), and many ducks, such as the chestnut teal (below) and hardhead





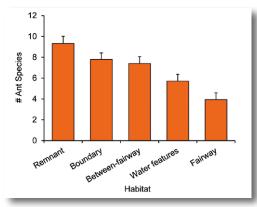


patches of remnant bushland on some courses provide attractive habitat for this and potentially many other woodland bird species.

This study recorded other notable species, which are not commonly observed on golf courses, including the long-toed stint, the Nankeen night heron, the spotted pardalote and the royal spoonbill.

Golf courses also offer a variety of habitats for ants, which are valuable ecosystem engineers. Various ant species scavenge for dead insects, eat insect pests, pollinate plants and aerate the soil. Across the 15 golf courses, we collected a total of 12,235 individual ants, belonging to 68 different species, with an average of 18 and a range of 12 to 22 species per golf course.

More ant species were found in remnant areas than in other habitats (Figure 2, below). Ant diversity is favoured by architecturally complex landscapes with trees, shrubs and herbs that provide them with a wide variety of microhabitats for feeding and nesting. Some species live in the leaf litter, while others nest on the trees themselves.



Three main groups of ants were dominant at the 15 golf courses surveyed, with meat ants (*Iridomyrmex* species) the most abundant group. This is not surprising as meat ants are the most frequently encountered group of ants in Australia. In fact, they can occur in such large numbers that they outcompete all other ants in the area.

The second most common group was the green-headed ant (*Rhytidoponera metallica*). These large, green metallic ants are common in urban parks and gardens. They prefer open habitats and are usually seen on the ground or on low vegetation. On the fairways, we found tiny ants from the genus *Pheidole* to be the most common. These small yellow-brown ants nest and forage in the turf, enhancing topsoil condition and facilitating nutrient cycling by creating tunnels, mixing plant and animal litter and reducing soil compaction.

Ants interact strongly with other invertebrates and plants in a number of ways, including scavenging and preying on other insects and feeding on sugary plant secretions. Maintaining a healthy and diverse ant community may help to improve turf conditions, reducing outbreaks of insect pests and the need for pesticide use.

CARBON STOCKS ON GOLF COURSES

The above-ground carbon stock (i.e. carbon stored in all plants) per course ranged from six to 93 tonnes and averaged 60 tonnes per hectare. The carbon stored in a plant varies greatly between different plant growth forms.

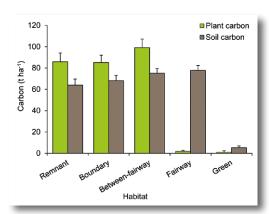
Low vegetation, such as grass and forbs, typically accounts for only six per cent of the total plant carbon on a course, ranging from one per cent on inland courses to 30 per cent on coastal courses. Shrubs accounted for less than one per cent of the total, while trees contributed the overwhelming majority of plant carbon, accounting for up to 92 per cent of above-ground carbon stocks.

Values for trees ranged from 57 per cent on coastal courses to 98 per cent on inland courses and these differences are driven mainly by the number and size of trees, and the types of native remnant vegetation, on the course. Carbon stocks were higher in woody habitat types, including remnant, between-fairway and boundary vegetation (Figure 3, below). The data show that courses with many large trees can store a valuable amount of carbon.

Below-ground carbon (that which is stored in soils) per golf course ranged from 40-108 tonnes per hectare with an average of 72 tonnes per hectare. Carbon stocks in soils varied greatly, depending on the soil types. Courses located on soils with higher clay content had consistently higher amounts of carbon.

Clay particles in soil can directly influence the carbon storage capacity, as clay consists of charged molecules providing large surface areas for binding organic carbon.

The different habitat types within a course generally had similar carbon values, except for greens. Since these are artificially constructed from sand, they had only about 10 per cent of the carbon associated with other habitats within the course (Figure 3, below).



ENHANCING BIODIVERSITY AND CARBON VALUE

The study developed an Excel spreadsheet-based toolbox for managers of golf courses in the greater Sydney area to estimate carbon stocks on their golf courses. The toolbox also includes a set of recommendations suggesting ways of increasing levels of biodiversity and carbon stocks on courses.

Our survey showed that remnant habitats can provide significant reservoirs of both plant diversity and above-ground carbon stocks. They also profoundly enhance the native plant species pool and are beneficial for invertebrate diversity. Water features, such as lakes and ponds and their surrounding vegetation, can also greatly contribute to overall site biodiversity.

Retention of low to medium stature vegetation - and especially having areas of different vegetation height - provides structural complexity, which creates niche space to support a wider range of species, thus contributing to overall plant and animal diversity.

So how can a golf club improve the biodiversity and carbon value of their golf course? Here are a few suggestions;

- Restore degraded habitats (e.g. boundaries) to align with local native/remnant vegetation;
- Increase the size of wooded areas;

CONTINUED ON PAGE 54



The study also recorded other notable species, which are not commonly observed on golf courses, including the royal spoonbill

Far left: Figure 3: Average size of above- and below-ground carbon stocks (tonnes per hectare) in plants: trees, shrubs and low stature vegetation combined, from five habitat types. Error bars represent one standard error of the mean

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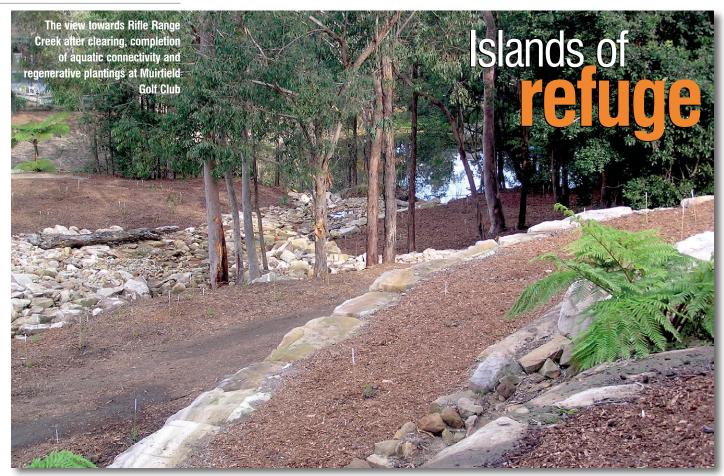


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Muirfield Golf Club was one of 10 golf courses to receive funding as part of the Teeing-off Carbon Connections project to assist in the management of an endangered ecological community on the course.



The view towards Rifle Range Creek before clearing and construction of the rock run

n addition to providing recreation for thousands of Australians, well-designed and managed golf courses also play a very important role in protecting local flora and fauna. Golf courses are large expanses of green, open space that support a range of different habitats such as woodlands, grasslands, heathlands, scrub, wetlands and water features in rough and out-of-play areas.

Significantly, almost 40 per cent of golf courses surveyed in the Sydney metropolitan region contain endangered or threatened species or ecological communities within their out-of-play areas. Ecological communities are important because of their unique assemblage of plants and animals, distinctive landscape values, vital habitat qualities and for the ecosystem services they provide.

Clearing of native vegetation, inappropriate fire regimes, weed invasion, climate change, water diversion, pollution and urban development has caused many ecological communities in Sydney to decline to the point of extinction.

CHAMPIONING THE ENVIRONMENT

Recognising that Sydney's golf course managers need support to develop awareness about these special plant and animal communities and to adapt current management practices to conserve and enhance urban bushland, Greater Sydney Local Land Services (GSLLS) has over the past three-years been running the Teeing-off Carbon Connections project. Funded by an Australian Government Biodiversity Fund grant, the Teeing-

off project has helped to rehabilitate ecologically significant habitats on 10 golf courses and in six public reserves.

Muirfield Golf Club in the northern districts of Sydney was among those golf courses involved in the project and is a prime example of how open green spaces in urban areas provide important 'islands of refuge' to enable endangered ecological communities to survive.

The course, located in North Rocks, features a remnant community of Sydney Turpentine Ironbark Forest (STIF) growing on low-lying land along Rifle Range Creek. Historical photos of the area show it was once covered in STIF, with land clearing leaving less than one per cent of the original range intact. STIF is now classified as an Endangered Ecological Community (EEC) in NSW under the Threatened Species Conservation Act 1995 and as a Critically Endangered Ecological Community under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

Muirfield course superintendent and longstanding AGCSA member Peter Watts has been championing actions to manage degraded rough and out-of-play areas for biodiversity conservation on the course for the last eight years. The area targeted for restoration was a former tip site that had been degraded by discarded construction material and had become infested with weeds (photo left).

Initially Watts and his crew decided to cover the area with good quality mulch to improve the soil and remove the weeds which allowed the EEC to regenerate. In 2012, the club was successful in receiving a three-year Teeing-off Carbon Connections project grant of \$82,000 to further improve the condition and connectivity of this 1.38 hectare remnant of STIF. The club matched the funding by providing labour as an in-kind contribution.

According to GSLLS's Teeing-off programme manager Nicola Dixon, the grant enabled the club to carry out substantial weed control, re-vegetation and creek water quality improvement works that it would never have been able to fund from memberships alone. The grant also stimulated the interest of club members and staff in the project with a number of Watts' staff now being able to identify individual plant species. The funding also further enhanced the efforts of Bushcare activities undertaken by volunteers and the club has begun to engage the local community in on-course biodiversity through information nights.

In addition to funding on-ground works, a series of technical workshops on managing rough and outof-play areas to improve biodiversity while reducing maintenance requirements were delivered as part of the Teeing-off programme. The workshops aimed to build the knowledge, skills and capacity of golf course staff and volunteers.

Watts attended three of the training workshops and believes they were a very good way to get new tips and to reinforce the practices that they were already doing to improve biodiversity on the course. "There is no recipe book for this type of work so the training gave us the confidence that we were heading in the right direction," says Watts. "The workshops and the success we've had on the course have been a tremendous motivator."

There are a number of benefits that have resulted from actively protecting and restoring the environment at Muirfield including reductions in course maintenance costs, saving of staff time and beautification of the course. For example, the rock runs installed along natural drainage lines slow down the flow of water through the course and reduce soil erosion.

"The rocks are starting to grow moss and provide habitat for small reptiles, such as lizards, and other animals," says Watts. "The key benefit is that this work helps to maintain a healthy environment. It's a no-brainer to help the environment as without a healthy environment there is no golf course."

MANAGING EECS

Budgets for restoration of EECs are often limited so course superintendents are always looking for ways to be cost effective. Watts believes his colleagues need to have a long-term vision in place and be patient yet persistent.

Volunteer bushcare programmes should also be an integral part of long-term planning. Muirfield has been running a volunteer programme for the past 12 years with a core group of 25 volunteers assisting with weeding and re-vegetation activities.



CRITICAL ROLE

It is clear that the design and maintenance of a golf course plays a critical role in determining species diversity and richness and with dedicated managers such as Watts vulnerable and endangered species on Sydney's golf courses are in safe hands. Golf clubs and all land managers have a critical role to play in the survival of Australia's unique biodiversity. Adequate protection is essential to ensure endangered ecological communities persist for the benefit of future generations.

Here are some simple steps superintendents and clubs can follow to conserve an EEC on their course, if they are fortunate enough to have one:

- Ask the local council whether the course is mapped as containing an EEC.
- Develop a basic biodiversity management plan by surveying what flora and fauna is found on the course (an ecological consultant can assist or you might have the skillset within the club membership). If endangered species or communities are present, the club may be eligible for specialised grant funding, but funding bodies often require a management plan to guide the works.
- Form a grants committee to apply for grant funding to carry out on-ground works. In the case of Sydney clubs, GSLLS can provide a list of available grants.
- Establish a volunteer bushcare group by putting out a call to your club membership.
- When undertaking any course redesign or hole re-locations, design habitat areas into the course.
- Use signs and fences to let players know that the habitat containing EEC is a special and sensitive place.

For more information about the Teeing-off Carbon Connections project and managing endangered ecological communities within a golf course setting, please contact Greater Sydney Local Land Services on (02) 9842 8700.

View towards 14th tee after clearing, rock run establishment and regeneration planting



Volunteers have played an integral part of biodiversity enhancement work at Muirfield Golf Club





CONTINUED FROM PAGE 51

- Use a variety of native trees for planting in managed wooded areas;
- Increase the number and/or size of ponds, lakes and water features; and
- Increase the cutting height and reduce mowing frequencies in non-playing areas to provide plant structural diversity

GREEN OASES

In an era of increasingly intensive development and land management, golf courses can and do provide important green islands amongst the urban sprawl. Their non-playing areas can include valuable blocks of native vegetation that harbour local plants and animals, while their full set of playing and non-playing areas can be a key part of the wider home ranges of larger animals, such as birds and mammals.



In an era of increasingly intensive development and land management, golf courses can and do provide important green islands amongst the urban sprawl

A mixture of vegetation types enhances animal diversity, including the important little critters like ants that contribute so much to ecosystem health. Water features with surrounding vegetation can add a further set of species, including attractive water birds and dragonflies.

A golf course also represents a substantial store of carbon, both below the ground in soil and above the ground in standing vegetation. Large trees make a very big impact on the overall carbon score of your course and are a great resource, providing food and shelter for wild animals large and small. So, if you want to score better than par for carbon and biodiversity, maintaining wooded areas that include large trees and a mixture of other plant types is one good way to go!

EDITOR'S NOTE

CROMER HOSTS TEEING-OFF CARBON CONNECTIONS LAUNCH

round 50 golf club and local council representatives attended the launch of the Teeing-off Carbon Connections project held at Cromer Golf Club in Sydney in June. The launch showcased and celebrated the achievements across the various sites that were

involved in the project, which received \$1.8 million in government funding.

Among those to make short presentations on works funded at their golf clubs under the project were AGCSA superintendent members Leon Hennessey (Cromer GC), Mark O'Sullivan (Roseville GC), Steve Kazurinksy (Cabramatta GC) and Justin Bradbury (Bonnie Doon GC). Also attending the day were fellow superintendents Mark Schroder (Liverpool GC), Shaun Probert (Ryde-Parramatta GC), Peter Watts (Muirfield GC), Peter Donkers (Long Reef GC) as well as Chris Blagg from Maxwell & Kemp.

The launch also included the findings from the UWS's Accounting for Biodiversity and Carbon on Golf Courses research project (see main article above for key results). Like the AGCSA's three-year biodiversity project in conjunction with the University of Melbourne that finished up last year, the UWS project is the first of its kind in the Sydney region and provides the golfing industry with a better understanding of the biodiversity and carbon store value of different golf course habitats.

In addition to the project findings, the Teeing-off Carbon Connections project extension resource (pictured) was also released at the launch. Attendees were given a copy of the DVD resource along with a copy of the Understory Plants for Sydney Golf Courses book.

The DVD contains a range of materials that can assist golf clubs and course maintenance crews, including information on grant writing skills and how to apply for environmental grants, as well as a series of best practice guidelines for managing and identifying native vegetation and weeds, managing fauna, managing water quality and managing volunteers. The resource also contains a case study of the environmental works undertaken at Muirfield Golf Club which is presented on the previous pages (52-53).

The DVD also includes a very handy 'toolbox manual' which enables a club to generate estimates of carbon stocks on their course by considering

soil and tree carbon across different habitat sites. It also identifies factors associated with higher levels of biodiversity and provides recommendations for improving the biodiversity value of golf courses.

All clubs in the GSLLS area of operation have been sent a copy of the Teeing-off project extension resource. If you have not received this, superintendents are urged to follow up with their general managers or administration officers.



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University of Western
Australia researchers
Louise Barton, Sam
Flottmann and Tim Colmer
present the final findings
from a HIA- and industry
partner-funded project
investigating approaches to
best manage current and
future water allocations for
turfgrass in public open
spaces.

Right: Figure 1. The effect of water allocation and the application of a wetting agent on turfgrass colour (over three years) for the 'budget' irrigation schedule. The greater the 'hue angle' the greener the turfgrass (Barton & Colmer, 2008)

outhern Australia, like many other regions of the world, is expected to experience a significant decrease in water resources due to changing climate. Turfgrass managers are under continued pressure to restrict water use, while also maintaining high-quality surfaces.

The importance of maintaining sports turfgrass so as to encourage physical activity is well recognised within the community. In addition, there is increasing evidence that well designed and maintained green spaces are also needed for mental health and well-being.

Water allocation is a key water planning method being utilised for irrigating public open spaces in southern Australia. For example in Perth, 6750 to 7500 kL/ha per year is allocated to turfgrass managers irrigating public open spaces with groundwater. The amount of water allocated has been established by State Governments; however, the most effective way to apportion the allocation during the irrigation season is at the discretion of the turfgrass manager.

In southern Australia, delaying irrigation until late spring or early summer may increase the incidence of water repellence, especially on sandy soils. On the other hand, applying too much water early in spring will leave less water for summer and possibly no water in late autumn depending on when the season 'breaks' (i.e., when 'winter' rain starts).

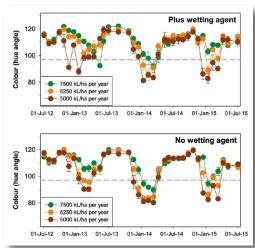
Current water allocations may change as it is acknowledged that water planning is not a one-off process due to the predicted impact of climate change on water supplies and that an adaptive approach to water supply and planning is required in Australia. Understanding how to best manage turfgrass on current and possibly lower future water allocations is therefore critical for managing turfgrass in public open spaces.

The University of Western Australia (UWA), in partnership with the Australian turfgrass industry, therefore:

- Investigated if turfgrass can be maintained with the current water allocation (7500 kL/ha per year) and the implications of further lowering the allocation on turfgrass quality;
- Evaluated how an annual water allocation is best apportioned during the year; and
- Assessed if using a wetting agent improved the effectiveness of a water allocation.

Our investigation was conducted at the UWA Turf Research Facility in Perth, Western Australia. The site provides the infrastructure necessary for accurately assessing turfgrass irrigation management practices, including a variable-speed travelling irrigator that allows water to be applied evenly and at known rates.

As outlined in Australian Turfgrass Management Journal Volume 14.5 (September-October 2012), experimental plots were planted in September 2011 utilising turfgrass harvested from a local government park that included a surface layer (25mm) of mat



with the potential to become water repellent. The experiment started in July 2012 and finished June 2015, providing three years of study.

MAINTAINING TURFGRASS ON A WATER ALLOCATION

Warm-season turfgrasses, such as kikuyu, can be maintained on a water allocation of 7500 kL/ha per year in Perth in low wear situations and as long as the irrigation system has a high coefficient of uniformity. This amount is equivalent to replacing about 70 per cent of Perth's net evaporation during the irrigation season (Sep-Apr) and is consistent with recommended irrigation requirements for warm-season turfgrasses (couchgrass 60%, Saltene 64%, kikuyu 66%, buffalo 68% and zoysia 67%).

Lowering the water allocation below 7500 kL/ha per year decreased turfgrass colour and growth, particularly in dry summers (see photo right and Figure 1 previous page). An allocation of 6250 kL/ha per year maintained adequate turfgrass when there was summer rainfall, however 5000 kL/ha consistently produced unacceptable summer colour.

IRRIGATION SCHEDULING

We investigated three approaches for scheduling a water allocation during the irrigation season (see breakout on page 58 for details of each approach). All approaches maintained turf growth and quality to a similar extent for each water allocation, thus providing turfgrass managers with various options for irrigation scheduling depending on resources.

Apportioning water each month based on historical evaporation and rainfall data ('Budget' schedule) was an effective approach to distributing a water allocation. Refining the 'Budget' schedule by either taking into account daily net evapotranspiration (ET) or monitoring soil water content enabled us to save a small amount of water some years for use later in the season (Figure 2, page 58).



ROLE OF WETTING AGENTS

Applying a wetting agent improved the effectiveness of a water allocation on soils prone to developing water repellence. For two water allocations (6250 and 7500 kL/ha per year), applying a wetting agent markedly improved turf colour during the summer months (see photo above) by decreasing soil water repellence and increasing soil water content.

Turfgrass plots in summer (Jan. 2014) maintained on different water allocations with or without a soil wetting agent. Improved greenness and reduced 'patchiness' is evident for plants with a wetting agent and irrigation at 6250 or 7500 kL/ha per year

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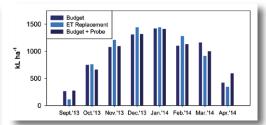


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Above right: Figure 2. Monthly irrigation water distribution for each irrigation schedule with a water allocation of 7500 kL/ha per year in the 2013/14 irrigation season at the UWA Turf Research Facility

Above: Project research officer Sam Flottmann measures turfgrass colour using a chromameter. A grid is placed across the plots to locate measuring points and avoid repeated soil sampling from the same position



Although applying a wetting agent decreased water repellence at the lowest water allocation (5000 kL/ha per year) it did not improve turfgrass colour. This was because soil water content was still too low to maintain acceptable turfgrass colour. Soil wetting agents can assist turfgrass managers to maintain turfgrass on a water allocation, but only if the water allocation is sufficient.

RESEARCH OUTCOMES

The development of practical approaches to best manage current and possible future water allocations to turf in public open spaces is the key outcome from this project. This was achieved by:

- Designing and implementing a field-based study programme in consultation with key-end users; and
- Presenting project findings to the turfgrass industry throughout the duration of the project such as via field days, seminars and via our industry research steering committee.

As a result, the turfgrass industry has an improved understanding of how to manage turfgrass using current water allocations and the impact of lowering the water allocation on turfgrass quality in southern Australia.

ACKNOWLEDGEMENTS

This project has been funded by HIA Ltd with co-investment from Organic 2000, STA WA and TGA WA; the Cities of Armadale, Belmont, Canning, Cockburn, Gosnells, Kwinana, Joondalup, Melville, Nedlands, Rockingham, South Perth, Stirling, Subiaco, Vincent, Wanneroo and the Town of Cambridge; the GCSAWA, Golf Management Australia and Golf WA; All Seasons Sanctuary Golf Resort, the Bunbury, Busselton, Cottesloe, Lake Karrinyup, Mt Lawley, Royal Perth and Wanneroo golf clubs; Botanic Gardens & Parks Authority, WA Government Department of Education, WA Government Department of Water, and funds from the Australian Government.

The following organisations are thanked for in-kind support: Baileys Fertilisers, Challenger TAFE, Globe Australia, Greenacres Turf Farm, MEY Equipment, Mow Master, Nuturf, WABA and UWA (UniGrounds). Members of the UWA Turf Industries Research Steering and subcommittees are thanked for their support and advice.

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Barton, L., Colmer, T.D., 2008. The Kikuyu Research Project: Nitrogen Fertiliser Regimes, Water Use, and Renovation Final Report for Project TU04001, Horticulture Innovation Australia Ltd, Sydney.

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IRRIGATION SCHEDULES TESTED AT THE UWA TURF RESEARCH FACILITY

BUDGET

- Water allocated based on historical evaporation and rainfall data at the study site, whereby the allocation is divided into monthly quantities (Sep-Apr).
- The allocation for each month is calculated by multiplying the annual water allocation by the proportion of the annual net evaporation that occurs in that month. For example, if 20 per cent of total annual net evaporation occurs in January, then 0.2 x 7500 = 1500 kL/ha would be applied in January.
- Monthly allocation then divided by the number of irrigation days per month to calculate a daily water application.
- Water applied 2-5 days per week, depending on the time of year.
- This approach enables water to be distributed throughout the year based on historical climatic data, but does not enable water to be saved for later in the season should there be below average evaporation or above average rainfall.

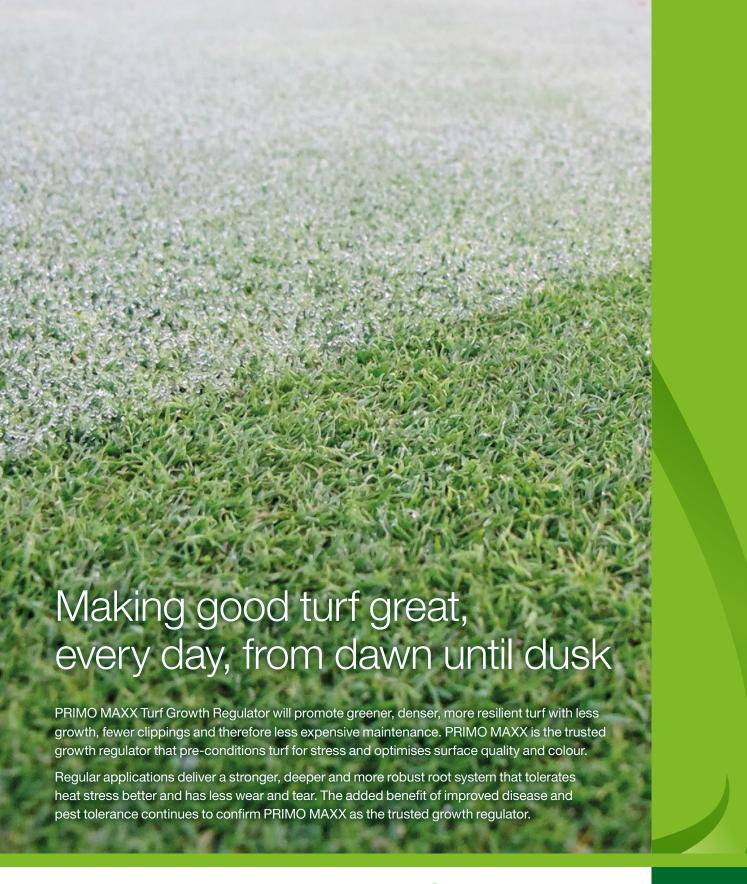
ET REPLACEMENT

- The first monthly allocation for the irrigation season calculated as above, but expressed as a % replacement of net evaporation. For example, if annual net evaporation is 15000 kL/ha based on historical data, and the annual allocation is 7500 kL/ha, net replacement is 50 per cent.
- Turfgrass irrigator programmed to replace the calculated replacement net evaporation during the month.
- At the end of each month, the total amount of water applied since the start of the irrigation season is subtracted from the remaining annual allocation, and the % replacement value recalculated.
- Water applied 2-5 days per week, depending on the time of year.
- This approach enables day-to-day climatic conditions to influence the irrigation application, with the potential to save water for later during the irrigation season.

BUDGET PLUS SOIL MOISTURE PROBE

- A soil moisture probe is used to refine the "budget" irrigation schedule described above.
- The monthly allocation is calculated as above, however irrigation only proceeds if the soil water content is below a critical
- At the end of each month, any water savings are redistributed across the remainder of the irrigation season.
- Water applied 2-5 days per week, depending on the time of year.
- This approach enables water to be distributed throughout the year based on historical climatic data, but also enables water to be saved for later in the irrigation season should there be above average rainfall in particular months.









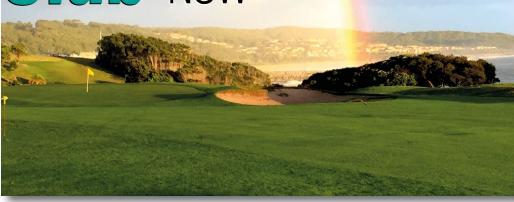
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Narooma Golf Club NSW

It's home to one of the most iconic par threes in Australian golf – affectionately dubbed Hogan's Hole – and since November last year it has been the new home to long-serving AGCSA superintendent member Brendan Warby. ATM takes a visit to Narooma Golf Club on the stunning NSW south coast.

The Narooma maintenance crew (from left) Brendan Warby (superintendent), Ken Hardingham (assistant superintendent), Blake Thornhill, Mark Lonsdale, Marty Brooker and Geoffrey Heycox



Superintendent: Brendan Warby, 47.

Nickname: Highlander.

Family: Wife Justine and daughters Courtney (21), Rochelle (19) and Dena (17).

Years as a superintendent: 19.

Association involvement: AGCSA member 22 years, NSWGCSA, SES.

Turf management career: Highlands Golf Club (apprentice then superintendent, 1983-87); Concord Golf Club (assistant superintendent, 1988-89); Highlands GC (superintendent, 1989-92); Camden Lakeside (assistant superintendent, construction then maintenance, 1992-98); Highlands GC (superintendent 1998-2012); Highlanders Laser Services (owner/operator, 2012-2014); Narooma Golf Club (superintendent, 2014-present).

Qualifications: Certificate IV Diploma in Turf Management.

Where in Australia is Narooma Golf Club? Narooma is located on the beautiful south coast of New South Wales, just a three hour drive south east of Canberra and four hour drive south of Sydney. Narooma is probably best known for its fishing and as a holiday destination and, of course, for its golf course and the famous par three 'Hogan's Hole'. Montague Island, a National Parks and Wildlife Reserve, is 8km offshore and provides a magnificent backdrop as you play the front nine.

Many holes at Narooma Golf

Club on the NSW south coast afford stunning views of the

the 6th looking north

Tell us a bit about your background in turf management? I lived in Mittagong and completed school in 1983 at Bowral High School. During my final year I thought it was a great idea to do work experience at Highlands Golf Club in Mittagong where I was a junior member and by December that same year I was signed on as an apprentice. In 1987 the head greenkeeper at the time left and I was fortunate enough to be put in charge.

In 1988 I went to Concord Golf Club as the assistant superintendent to a very young Mark Parker who prepared an excellent course for the 1988 NSW Panasonic Open, but soon worked out that living in the city was not for me. A three-year stint as superintendent back at Highlands followed before being involved with the tail-end of construction in 1992 at Camden Lakeside (assistant to David Scaife). While there I had the opportunity to attend conferences, seminars and mix with some of the gurus and characters of the turf industry.

Truly inspired by the people I met and the contacts I made, not only in the industry but through the AGCSA, I knew this was the right career choice for me. I headed back to Highlands in 1998 as superintendent where I was able to use the experience I had gained to help improve the course, and also to be near while our three daughters were growing up.

During my time at Highlands there were many highlights but the ones that stand out the most were completing the irrigation system and construction of



two new greens and the 7th hole. Another moment that really stands out was the bushfires of 2005 which started behind the golf course and burnt out many properties in the surrounding villages. Watching the Ericson water chopper constantly visiting our irrigation dams and taking on board 7000 litres of water in less than one minute to help combat the fires was an impressive sight.

During the latter years of my time at Highlands I started a small business laser levelling playing surfaces, tees, bowling greens, tennis courts etc. Horse arenas became a regular gig and even the town water supply reservoir base had Highlanders Laser Services involved. I left Highlands to run the business full-time and found it to be a very refreshing change because Highlands at the time had tried to run the club without a manager and some of the decisions made were frustrating me. I really enjoyed the challenge of running my own business and being independent and it was great to be able to take a couple of weeks off at Christmas!

I've always loved the south coast of NSW and after attending the 2014 Australian Turfgrass Conference to keep in touch with my colleagues, I realised what a great industry it was to be a part of. While doing some work on a course in Canberra the Narooma job was advertised and I had levelled some tees there earlier that year and was impressed by the course and its location. During my absence I missed the challenge of preparing fine turf areas and presenting a golf course for all events, large or small.

How have you transitioned back into the life of a superintendent? The transition has been good and made a lot easier due to the support of family, members and fellow superintendents. Twenty minutes north is Moruya Golf Club with Brent Hull at the helm and 20 minutes south is Bermagui Golf Club with David Thompson, both whom I have known for some time now and are truly great turf managers. It was only a two-year break and not much had changed except for some new products being available.

Give us an overview of Narooma GC and some of its unique characteristics? Narooma GC is extremely unique in the fact that we have nine holes which have uninterrupted views of the ocean and Montague Island, with some playing surfaces perched on cliff tops. As you make your way to the 8th tee you get to play a couple of holes that would not look out of place on a sandbelt course, before finding yourself playing a course with undulating fairways, broken lake views and tall spotted gums.

Holes 17 and 18 bring you back to the clubhouse with the finishing hole a par 5 dogleg right where only the brave will go for green with the second shot across the coastal bush. The green is pushed back towards the cliffs with Montague Island in the background – a great finishing hole.



Our par three 3rd – Hogan's Hole (made famous by Paul Hogan's Winfield TV commercial) – has been officially recognised as one of the country's best with induction into the Australian Golf Digest Golf Holes Hall of Fame.

Narooma's famous 141m par three 3rd, affectionately dubbed Hogan's Hole, requires a carry over a yawning chasm

What are some of the unique features about Narooma GC from a turf management perspective? By far the most unique feature is that there is no automatic irrigation on the front nine. It takes up to 20-plus man hours per week to irrigate the greens and tees, not including handwatering. More important than that is the fact applying products that require to be irrigated in becomes time consuming and almost impossible on fairways. Another unique feature is the very different soil types in the greens and their surroundings. The front nine have a sand profile and excellent air movement around them, while the back nine are of a heavier soil with a lot less air movement.

Is it an easy/hard facility to manage? What's the most challenging aspect? The course itself is quite an easy facility to maintain but in saying that the bunkers are old with some large clay faces which means a lot of shovelling after a major rain event. Some bunkers have an open drainage point at the moment and others have no drainage at all. Needless to say they are high on the priority list for reconstruction.

Take us through your turf management operations there and any changes recently implemented? KISS! With a not so big staff and a budget of the same stature, keeping it simple works here at the moment. Growth regulators are extremely important in producing quality turf and are quite a powerful management tool. I've implemented a number of changes in the short time I've been here with more frequent cutting of all playing surfaces, the introduction of some new machinery and work practices to boost team morale. I try and lead by example and make the workplace an enjoyable place to be.

Top your tee shot on the 4th and you won't be getting it back in a hurry





Looking down the 2nd at Narooma.

The fairways are predominantly kikuyu

A new bridge connecting the two halves of the Narooma course was constructed this past winter after the old timber bridge was condemned by council. That meant storing golf carts in the maintenance facility



What other maintenance changes are you planning on introducing? I'm about to take delivery of a new spray unit and therefore be able to introduce some new spray programmes starting with *Poa* control on the greens. Our current unit is a late 1980's vintage and quite inaccurate. Also, with purchase of a second hand Verti-drain recently, I plan to increase our aeration regimes.

Any special environmental considerations that you have to incorporate into the management of the course? I think by now we all know that we need to be environmentally sensitive and aware. Just recently with the construction of our new bridge across the lagoon (see below), there were an incredible amount of studies to be carried out before we got the green light. As a superintendent the environment is always considered before setting any programmes or undertaking any projects, especially being this close to the coast and waterways.

What are some of the major challenges facing Narooma GC both from a turf management and club management perspective? From a turf management perspective, my biggest challenge again is maintaining nine holes with very limited irrigation. This is largely due to a lack of funds in the past years and my hat goes off to my predecessor Richard Goodridge who did a marvellous job managing the course during those tough years.



I think we've turned the corner now and have a good CEO and an equally good committee steering the ship. Our golf numbers are good, as are restaurant/bistro numbers, but we have some fierce competition in town for the gaming side of things. The club is looking at some design changes to the clubhouse to try and improve our patronage.

Outline any major course improvement works recently completed. The week I accepted the role here I was informed that the bridge that links the two halves of our course had been condemned by council and no vehicular traffic was allowed across, golf carts included. Therefore to keep the 18 holes in play we needed enough golf carts on either side of the bridge. Because the maintenance facility was located on the back nine, my shed became storage for no less than 30 golf carts!

Each morning any number of carts (from 10-30) had to be taken from the shed to the bridge and brought back again each evening. My staff and I only had to take them down Monday-Wednesday mornings while an unbelievably dedicated group of volunteers brought them up and did it every other day, our president and some committee included. This went on over our busiest period (Christmas) and also for our largest tournament the Seahorse Classic. We also had to get conditional registration for all course machinery to use the road to maintain the front nine!

Prior to my arrival last November the task of organising a 40m long timber bridge had begun and the club chose Tasman Engineering Consultants who engaged EFA Piling as the builder. Once the design was complete and the plan drawn up, the DA was submitted to the council. In conjunction with the council we applied for a grant from Crown Lands for the bridge to be replaced, only to find that neither of the original bridges had been registered when this section of the course was constructed in the late 1970s! After many weeks and with all the important authorities involved (Fisheries, Marine Parks and Wildlife, Department of Water) our application was approved and the bridges were registered. By this time it was the end of April so it was decided to wait until after the Seahorse Classic (held over the Queen's Birthday Weekend) just in case there was a delay due to bad weather.

The old bridge had to be completely removed prior to the construction of the new bridge because



it was a complete rebuild, piers included, and it had to cross at the same point. The builders arrived and started dismantling the bridge on 9 June before they craned in two 8-tonne pontoons and joined them together to enable an excavator to work from the water and another to work from the shore. Three weeks later the new bridge was in place but ironically the first weekend it was open the course was closed to carts due to bad weather!

Water is obviously a critical issue for any golf course. How is Narooma GC faring in the water management stakes? I feel we are doing fine at the moment with our water management. The area has a good annual rainfall and we also have an adequate catchment area. This may be subject to change once we look at irrigating the front nine. Several years ago the club was offered grey water from the local treatment plant but did not take up the offer at the time and therefore this may be an option for us. In saying that, the nearest tap in point is on the other side of the inlet which is about 2km from the club.

The weather and climate is always a great leveller for a course superintendent. How has Mother Nature treated the course in recent times? Apparently the rainfall I received during the last growing season was the best we've had for some time and I'd have to agree. At no stage was I threatened with having to budget water and the non-irrigated areas remained green. However, I am aware that at times I will need to budget water and the fairways on the front nine will suffer. Several years ago my predecessor did have to truck some water in to keep the greens alive, so fingers crossed this isn't a regular occurrence.

Are expectations of course presentation and conditioning any less than that placed on your metropolitan counterparts? Not at all! I think as golf course superintendents we try and present the golf course to its highest standard irrespective of where it's located and place high expectations on ourselves to do so.

How important are the relationships you have with other course supers/trade reps? I value the relationships with most people in the trade especially other course supers and strongly believe the only dumb question is the one you don't ask. I would never claim to know it all and I'm definitely not too proud to ask for assistance when I need it or get a valued second opinion. There are a great bunch of supers on the far south coast from Dennis Grounds at Club Catalina (Batemans Bay) to Pat Wilson (Pambula-Merimbula) and it's always great to get together for a yarn. And if you hadn't already noticed, I'm a big fan of the networking at the annual conference and have met some fantastic supers over the years.



What have you got in your shed? 2 x Toro Greensmaster 3250D (greens and tees), Toro Reelmaster 3100D surrounds, Toro Reelmaster 5510 fairways, Toro Groundsmaster 7200 and John Deere 1445 (roughs), Toro Sand-Pro 3040, Pro-Force blower, John Deere 1070 tractor, Bobcat 743 loader, Bobcat utility trickster, E-Z-GO ute, Cushman truckster and spray unit (almost retired), Verti-drain, Hardi 2000lt spray tank (no boom), Dean trailer (very old), Aer-way fairway aerator and John Deere 955 tractor with laser guided blade (mine).

What's your favourite piece of machinery and what will be your next major purchase? I haven't received delivery yet but it will be the Toro Workman HDX Spray unit. Our current spray unit is very unreliable and the new one will save me a lot of time and we will be more confident in the products we use. I've been lucky to purchase several machines since I've been here but still on the wish-list is a small excavator because almost all the bunkers require shelling out, lining and new sand. It would also be required when we start the irrigation on the front nine and any drainage work we carry out.

Favourite spot on your course? Probably the 2nd tee looking south; it's a classic hole and you get views of the ocean and Montague Island.

Best advice you have received about being a course superintendent? Over the years I've received plenty of good advice but there are two that Looking back up the 13th. Holes 8-16 meander their way through tall timbers and around Little Lake which is in complete contrast to the holes on the headland part of the course

Irrigation on the headland part of the course (holes 1-7, 17 and 18) is still courtesy of hoses and impact sprinklers





Narooma's opening hole. The headland greens, such as the 1st, are Seaside bentgrass while the remaining holes are an Agrostis palustris/Agrostis tenuis browntop

stand out. Dr Jim Moore, while doing a talk at Castle Hill Country Club for the USGA Green Section, said if you can't work out why your turf is not performing from the surface, dig a hole, even if it's in your putting green. The second came courtesy of former Port Kembla superintendent and NSWGCSA Board



member Wayne Marland, who in my first year as a super advised me to 'keep it simple stupid'!

Most pleasing/rewarding moment during your time at Narooma? Presenting the course for my first Seahorse Classic was pretty special and rewarding in the short time I've been here. I plan to do it better next year! Oh, that and the 47 points I had playing in the members comp one Thursday not long after I started here. Oops!

AT A GLANCE – NAROOMA GOLF CLUB. NSW

Course specs: 5941m, par 72 (35/37). Narooma Golf Club is basically made up of two halves – holes 1-7, 17 and 18 on the headland part of the course while holes 8-16 meander their way through tall timbers and around Little Lake. We have about one hectare of putting green surface which consist of originally sown Seaside bentgrass (headland greens) while the remainder are an *Agrostis palustris/Agrostis tenuis* browntop blend. Tees about 1ha and fairways 13ha, both predominately Kikuyu.

Members: 2232 (450 full playing).

Annual rounds: 50,000.

Major events: Seahorse Classic over Queens Birthday weekend and

Narooma Open in November. **Annual course budget:** \$332,000.

Staff structure: Brendan Warby (superintendent), Ken Hardingham (assistant superintendent), Marty Brooker (qualified greenkeeper), Blake Thornhill (senior groundsman), Mark Lonsdale and Geoff Heycox (groundsmen).

Climate/Rainfall: Narooma has one of the most temperate climates in Australia with summer average daytime temperatures around 25 degrees and winter in the high teens. Record high of 43.8 in January 2013 and record low 0 in May 2010. Average annual rainfall is 912mm. Soil types: The first nine greens built in the late 1960s are constructed from native sand excavated from an area behind the current 8th green, whereas the second nine to be constructed were built from a local soil sourced from Bodalla (about 10 minutes down the road) which is more like an 80/20 blend. Fairways 8, 9 and 16 have a straight sand profile while the rest of the course is built on the existing clay/soil profile.

Water sources: Mostly catchment collected in a series of three dams with a total capacity of around 60 megalitres. Front nine supplemented by town supply.

Irrigation system: Next question! Holes 8-16 were irrigated with a fully automatic Toro hydraulic system when it was constructed in 1979, but over time some components have been replaced with Rain Bird products and is due for an overhaul/replacement. All the greens on the front nine are irrigated by hose and impact sprinklers while some of the tees are semi-automatic. In the height of summer this requires a staff member starting work at 2am 3-4 times per week and some dedicated hand watering.

Cutting heights/regimes: At present the greens are cut 5-6 times per week at a height of 3.6mm using a Toro Greensmaster. I take the height down to 3mm or even a fraction below for tournaments and championships. Tees, fairway and surrounds are mown 2-3 times per week depending on seasons and staff levels at a height of 14mm.

Renovations: Just recently the renovation practices on the course have changed with the addition of a Verti-drain to our machinery register. The greens still receive a major renovation at the beginning of spring each year consisting of heavy scarifying, deep coring or solid tine and topdressing. Regular dethatching will be carried out during the growing season and once I am able to purchase our own topdressing machine I hope to do away with the major spring renovation with regular dethatching, needle tining and light topdressing.

Tees are dethatched once per year and compaction is controlled using the Verti-drain as required. The fairways at present receive aeration once a year using a combination of the Aer-way tractor drawn aerator and the use of the Verti-drain in those areas that require extra compaction relief. Dethatching fairways is also on the radar.

Major pest pressures: The greens were heavily attacked by Argentine stem weevil towards the end of last year, as were a lot of the courses on the south coast. It took regular applications of insecticide to control not only the larvae but also the adult.

Compaction in greens 8-16 was also a huge problem for me last growing season along with root invasion from large but appealing spotted gums (*Corymbia maculate*). I put a Shattermaster through the profile and was surprised to find 50mm tree roots within 150mm of the surface in some greens. The fairways were largely affected by winter fusarium this year and will be treated by improving light and air movement along with a fungicide application.





Summer Standouts



Princess 77 is one of PGG Wrightson Turf's elite bermudagrass varieties. Bred by Dr. Arden Baltensperger from Seeds West Inc. it has outstanding drought tolerance, great divot recovery and a dark green colour. Its medium fine leaf texture makes it a great choice for sportsfields, golf courses and amenity situations.

Sowing rate: 0.5 – 0.8kg/100m² (50 - 80 kgs/ha)



MacKenzie creeping bentgrass is a high quality turfgrass for greens, tees and fairways and is bred from stresstolerant germplasm. It has high density through all seasons, winter active growth, bright medium colour and a fine leaf texture.

Sowing rate: For new turf sow at $0.5 - 0.75 \text{kgs}/100 \text{m}^2 (50 - 75 \text{kgs/ha})$ for over seeding sow at 0.25 - 0.3kgs/100m² (25 - 30kgs/ha)

For further information contact your PGG Wrightson Turf Representative or free phone 1800 DURATURF



info@pggwrightsonturf.com.au ff facebook.com/pggwrightsonturf

JACOBSEN STARTS PRODUCTION OF NEW HOVERKING



The HoverKing's lighter weight and superior ergonomics make it easy to manoeuver, even on steep inclines

GCSA Gold Partner Jacobsen has begun

production of its all-new HoverKing, the lightest hover mower on the market. The 40.6cm (16-inch) version weighs in at just 11.7kg and features an advanced design and superior ergonomics, making it the easiest hover mower to operate in difficult areas. The 50.8cm (20-inch) version weighs in at only 16.5kg.

"Hover mowers typically maintain the most sloped areas on

a golf course where mowing is very difficult," says Jacobsen product manager Chris Fox. "We saw a real need for a lighter, more rugged hover mower that could be easily operated, manoeuvred and transported. The HoverKing's lighter weight and ergonomic handle design make it easier to operate in all conditions."

Lightweight yet durable, the HoverKing also

features integrated handle mounts that stand up to the rigors of daily use. "During our field research, superintendents told us that one of the most common problem areas on current hover mowers is where the handle mounts to the deck," says Fox. "Our engineers integrated the HoverKing's handle mounts into the engine mount, providing a much more durable attachment point that will hold up over time."

Another feature of the HoverKing is that it offers a height-of-cut of 7.6cm (3 inches), the highest in the industry. In addition, the HoverKing offers three cutting system options – metal blade, metal edge with nylon blade or nylon string.

For information about the HoverKing, contact your local Jacobsen distributor.

BAYER TAKES TEMPO INSECTICIDE TO AN XTRA LEVEL





AGCSA Bronze Partner Bayer has launched a new and innovative turf and ornamental insecticide in time for the new season. Tempo XTRA is a unique dual mode of action insecticide designed to control tough pests in turf and ornamental situations.

In turf, Tempo XTRA is registered to control nine pests, including difficult insects to control such as Argentine stem weevil and couchgrass mite. In ornamentals, Tempo XTRA is registered to control 12 pests, including economically important insects such as aphids, mealybug, scale, whitefly and thrips.

What provides the Tempo XTRA formulation difference is the unique milling process, whereby the two active ingredients (Imidacloprid and Betacyfluthrin) are finely milled in combination. This co-milling creates a range of benefits including uniform particle size for the two actives which improves hang time in the tank, gives greater coverage and maximises biological exposure of both actives. This unique formulation is called HAS (Homogenised Active Solution) Technology.

Gary Dempsey, course superintendent at New South Wales Golf Club, has been trialling this new product and has been very impressed with the results. "New South Wales Golf Club has been trialling Tempo XTRA over the past two summers and I can say without hesitation that this product

has been a welcome addition to our rotation of insecticides in our battle with stem weevil," says Dempsey. "The visual immediate results when using this product give a reassuring sense that the insect levels are being managed and damage is kept to minimum levels."

Adds Bayer turf market manager Peter Kirby: "Bayer's own scientific trial research data has shown that the active ingredients in combination provide a synergy, increasing control by up to 40 per cent. This makes Tempo XTRA an ideal resistance management tool as it works fast in knocking down insects. When you compare against other synthetic pyrethroid products such as Bifenthrin, Tempo XTRA can control key turf insects within 30 minutes, whereas it takes up to an hour with Bifenthrin materials. Tempo XTRA has better knockdown and better residual activity due to better chemistry."

Bayer's Tempo XTRA is now available now from distributor outlets. For more information about Tempo® XTRA visit www.environmentalscience. bayer.com.au/Turf-Management

APVMA RELEASES DECISION ON FENAMIPHOS

Following a long review period, the Australian Pesticides and Veterinary Medicines Authority (APVMA) has made a decision relating to the use of products containing fenamiphos. This decision was made public on Tuesday 28 July, 2015. As a result of the review, new restrictions and cancellations are now in effect for existing and new products containing fenamiphos. There are currently quite a number of products in the Australian market containing fenamiphos used in both turf and agriculture.

Under all revisions and cancellations to registered products such as this there is usually a phase out period. Should superintendents and turf managers have this product in stock for future use it is recommended they contact the APVMA or check the APVMA website to ensure they comply with any new restrictions of use. It should be noted that some changes to labelling may also be in effect. For more information on this review, read the APVMA Gazette dated Tuesday, 28 July 2015 (page 13).

TORO INTRODUCES FLEX800 SERIES SPRINKLERS



AGCSA Platinum Partner Toro has launched the Flex800 Series golf sprinkler family to complement the Infinity Series with Smart Access. The Flex800 combines all the efficiency and proven performance features and benefits of Toro's 800S and DT Series golf sprinklers into a single golf sprinkler family.

The Flex800 and Infinity Series offer customers the flexibility to order the exact combination of features they need without the burden of those they don't. They choose the body, riser and activation type to customise each sprinkler to precisely meet application and budgetary needs.

The Flex800 Series bodies are designed to withstand the harsh outdoor golf environment and provide reliable performance. The Infinity Series, featuring the patented Smart Access compartment, enables crews to have quick and easy access to all internal components to provide significant labour savings.

There are three flexible riser choices:

- Full circle with Dual Trajectory: Full circle operation with Dual Trajectory nozzle adjustment provides consistently excellent nozzle performance.
- Adjustable part and full circle with Dual Trajectory: Adjustable part and full circle operation with two key labour saving features including the ratcheting riser that allows riser alignment without disassembly and the nozzle base clutching that provides 'turn-hold-shoot' of the nozzle base for hot spot watering.
- Adjustable part and full circle with 24
 Position TruJectory: Provides the ultimate in nozzle flexibility allowing 24 position trajectory adjustment.

There are five flexible activation choices that turf managers can select:

- Three satellite field control system choices: Standard 24 vac solenoid; Spike Guard 24 vac solenoid with lower wattage and more than twice the lightning protection; and nickel-plated Spike Guard solenoid that provides the additional feature of improved corrosion resistance for non-potable water conditions.
- Two 2-wire field control choices: DC latching solenoid with low voltage pulse from 1, 2 or 4 station GDC modules remotely placed in valve boxes out of play. The other option is the Integrated GDC module w/DC latching solenoid that is installed at the sprinkler location, outside of the sprinkler body (Flex800), or inside the protective Smart Access compartment (Infinity).

All Infinity and Flex800 Series models are currently available. Visit www.toro.com.au for more product information.

STEALTH S3 MOWS THEM DOWN

After over 18 months of feedback, field trials and testing, New Zealand-based mower/slasher manufacturer Trimax has released its new Stealth S3 linkage wing mower. Designed specifically for Australian conditions, the 3.4m cutting width (134") has a higher quality of cut, can operate in a wider range of conditions and is safer, more robust and easier to maintain than previous Stealth versions.

The Stealth S3 features heavy duty Tri-bolt housings, large triple sealed bearings, replaceable stubs and simple yet robust roller retention. The innovative roller bearings require no maintenance greasing and have a longer lifespan than any previous Stealth. The improved cutting chamber design means a much improved quality of cut and spread in long and short grass. The new baffle design directs airflow from the blades out and over the rear roller, making the Stealth S3 the most versatile Stealth ever.

Stealth S3 is fitted with Trimax LazerBladez, a blade system with a carefully engineered centre of gravity and distinctive tilt-forward blade design unique to Trimax for optimum performance and grass spread. Product options include individual wing lift/electric unlock, roller scrapers, safety stands and a safety and storage kit.

To book a Stealth S3 demonstration call 1800 874 629 or visit www.trimaxmowers.com.au





wing mower





TGCSA





Around 120 attended the combined TGCSA and STA Tas conference at Barnbougle Lost Farm in mid-August

oyal Melbourne superintendent Richard Forsyth and Etihad Stadium arena manager Gavin Darby were among the keynote speakers at the TGCSA/STA co-sanctioned Toro Tasmanian Sports Turf Conference and Trade Show held at Barnbougle Lost Farm.

Held on 18-19 August, the opening day saw a nine-hole stableford event on the front nine at Lost Farm. After a word from TGCSA platinum sponsor Toro Australia and Pellows Saws and Mowers, 120 attendees packed into the converted Lost Farm restaurant to listen to Richard Forsyth present on managing the East and West courses at Royal Melbourne including preparations for the many international tournaments the famed sandbelt facility hosts.

The trade show was held in a large marquee on the practice area at Lost Farm with delegates enjoying a terrific atmosphere throughout the lunch break followed by a presentation to golf winner **Brad Marsh** who beat **Brendon Rose** on a countback. During the afternoon delegates enjoyed presentations from Gavin Darby who discussed maintenance practices at the Melbourne sporting

arena, while **Simon Muller** reprised his recent 31st Australian Turfgrass Conference presentation which looked at the development of the new Cape Wickham course on King Island.

Nigel Baker and Ben Garrett from The Baker Group put together a presentation on the recent rebuild of Invermay Park in Launceston, before golf course architect Richard Chamberlain gave a talk on golf course design and master planning. Following happy hour in the trade show, delegates and sponsors enjoyed dinner with Barnbougle owner Richard Sattler's "unplugged" version of 10 years of links golf in Tasmania entertaining everyone.

Day two of the conference kicked off with machinery demonstrations followed by presentations to Jason Whelan (Barnbougle Lost Farm) and Grant Woolley (Aurora Stadium) who were the respective TGCSA and STA Graduate of the Year recipients. Whelan went on to give an insight into the presentation he produced for the national conference before boss and host superintendent Phil Hill gave a presentation on the construction of Barnbougle's new polo field.

A sports turf forum that included Hill, Darby, Aurora Stadium curator **Bryan Dunn** and Blundstone Arena curator **Marcus Pamplin** finished off the education component before Hill wrapped up the conference with a turf tour.

The TGCSA AGM was held in conjunction with the conference with only limited changes to office bearers. The new board for the coming year is:

- President: Mark Johnson
- Vice-president: Phil Hill
- Secretary/Treasurer: Dan Gilligan
- Committee: Bryan Dunn, Tony Smith, Mark Selby, David McLean and John Wells

MARK JOHNSON PRESIDENT, TGCSA

STA AUSTRALIA



uly and August were certainly busy with the ACT, WA, SA, Tasmania and Victorian STA associations each holding very successful state seminars. Congratulations to all those involved for putting together some terrific seminars which were well attended. STA NSW will be holding its annual Golf Day at Bayview Golf Club on 19 October.

STA Australia is very glad to welcome home the STA/Toro contingent that travelled to the USA for an incredibly memorable and privileged couple of weeks. Toro senior marketing manager Elise Willemsen travelled with 2014 STA National Sports Turf

Graduate of the Year winner Luke Cooney (Hale School, WA) and Scott Wallis (mentor).

On her return, Willemsen reported: "The week in Minneapolis was excellent and the boys got to see some exciting new technology coming through. They integrated with the US guys really well and I think much information was shared on baseball vs cricket and snow vs extreme heat.

"Chicago was what I could only describe as amazing. The sales manager for Toro US set us up with some spectacular stadium and parks tours and we got to meet some turf legends like Roger Bossard (pictured above)



who is a third generation turf manager for the Chicago White Sox and has had a hand in building just about every major baseball field in the US. He also left us on the field while the White Sox and Yankees were practicing!"

TONY GUY PRESIDENT, STA AUSTRALIA

VGCSA 🌣

ne of the things I enjoy most about living in this great state of ours is that we get distinctly different seasons. I hope that the recent winter has been kind to everyone and there haven't been too many major issues caused by the weather.

It has been extremely pleasing to see the large number of people attend recent meetings, including the 110 who made the journey up to the magnificent Yarrawonga Mulwala Golf Club for our country meeting in early August. A huge thank you to recently crowned Toro AGCSA golf champion Chris Burgess and the entire team at Yarrawonga Mulwala; the course presentation was outstanding and their hospitality made for a very enjoyable couple of days.

A full programme of informative presenters and demonstrations gave the event a good balance of educational and networking opportunities that hopefully was enjoyed by all. For me the highlight of the meeting was having VGCSA life-member Ben Nowell attend.

Ben is a former superintendent at Yarrawonga Mulwala Golf Club and has been involved in the golf club as an employee, committee member and board member over a 50 year period. It was fantastic to hear Ben speak to the group on the Monday

night and the slide show that he compiled certainly entertained the room.

The VGCSA committee has been busy confirming the calendar of events for 2016 and I can confirm that we have been very lucky to lock in some very high calibre venues, including Royal Melbourne, Victoria, Rich River, Yarra Yarra, Devil Bend, Eastern and The National. Dates will be confirmed in the very near future so keep an eye out for them.

I would like to take this opportunity to recognise Adam Robertson for all his involvement in our industry over many years. Adam finished up at Kew Golf Club in late July after serving nearly 20 years at the club. Adam served on the VGCSA committee for a number of years and has always been a very approachable individual that I personally have learnt a lot from. I had the privilege of starting my career working as an apprentice under Adam for four years and his level of professionalism, work ethic and leadership certainly made him a very popular and inspirational individual that I will always look up to. Thanks and best of luck for the future Adam.

JEREMY CUTAJAR PRESIDENT, VGCSA

ON THE MOVE

CAMERON HALL: From superintendent Northern Golf Club, Vic to superintendent Kew Golf Club, Vic.

BEN LUCAS: From superintendent Young Golf Club, NSW to superintendent Tocumwal Golf Club, NSW.

ADAM ROBERTSON:

Resigned as superintendent Kew Golf Club, Vic in July after nearly 20 years in charge.

TRAVIS SCOTT:

From superintendent Eastwood Golf Club, Vic to superintendent Riversdale Golf Club, Vic.



CHRIS FLETCHER: Resigned as superintendent Ipswich Golf Club, QLD in early September.

SAGCSA © Club, QLD in early September.

e have reached that time of the year once again with many facilities readying themselves for spring renovations prior to heading into the summer season. Most in South Australia would probably say they have not had as much rain as they would like over winter, although it is nice to see extended daylight hours and some slightly warmer temperatures that come with the change of season.

The 2015 SAGCSA AGM was held in late July at The Vines Golf Club of Reynella (host superintendent Rob Millington), with 35 members attending the meeting to witness the following committee elected:

- President: Barry Bryant (Mt Osmond GC)
- Secretary/Treasurer: Richard James (The Grange GC)
- Committee: Stephen Chapman (Barossa Valley GC), Nathan Bennett (Royal Adelaide GC) and Tim Warren (Links Lady Bay)

The SAGCSA is happy to welcome a new member in Tim Warren onto the committee and thanks Chad Dawe (Willunga GC) who has stepped away from committee after a few years.

Following the AGM, attendees were treated to a presentation from **Tim Nielsen**. The former Australian cricket coach recounted some stories from his years with the team travelling the world, along with lessons learned regarding leadership and



people management that transcend the sporting world into the role of a superintendent.

August saw our 2015 Country Meeting take place with a group of 20 superintendents, assistants, sponsors and trade representatives make an interstate trek to Barnbougle Lost Farm to attend the TGCSA two-day conference. A great trip was enjoyed by all, taking in the educational content that our Tasmanian counterparts presented along with a couple of rounds of golf on the spectacular Barnbougle courses. We also enjoyed a tour of the ground and facilities at Aurora Stadium during the week. Thanks to the TGCSA for their hospitality and our generous SAGCSA sponsors for their support.

The next major event for the SAGCSA will be the SA Golf Industry Awards Night in October where we will be presenting awards to acknowledge outstanding efforts in the field of turf maintenance.

> RICHARD JAMES SECRETARY/TREASURER SAGCSA

The SAGCSA contingent at the TGCSA conference held at Barnbougle Lost Farm in August

STA VIC





Pictured with AFL great Kevin Sheedy at the recent Sportsfield and Wicket Seminar are STA Vic committee members (from left) Nathan Tovey, Danny Edmunds, Garry Woolard, Grant Greenway and John Cann he 2015 STA Victoria Sportsfield and Wicket Seminar was held at AAMI Park on 22 July with 320 registered delegates. The day was a roaring success and only seems to be getting bigger and better every year with a bustling trade show and packed out seminar room. A special thanks to Jan Fenton and Jessica Woolard for all their work in making the day a great success and to major sponsor Globe.

The day began with the STA AGM with the following committee elected for the coming year:

President: Peter Todd

• Secretary: Danny Edmunds

Treasurer: Garry Woolard

Senior vice-president: Nathan Tovey

Activities: John Cann

Membership: Grant Greenway

Marketing: Rob Jenkins

Education: Jim Porter

There is still one vacant vice-president role available, so if anyone is interested in joining the committee they can contact any of the above committee members.

Opening speaker of the seminar was **Toby Lumsden** from City of Casey who gave a presentation
on Casey Fields and the reconstruction of the
VFL ground that Casey Scorpions and Melbourne
Football Club use. **Ricky Bell** (AFL Victoria)
presented next on the growth of football across
Victoria, particularly female participation and the
benefits that local football has within the community. **Geoff Connellan** then presented content from his
new book on water management for open space
areas before major sponsor Globe provided some
information on the services it provides.

Following morning tea Ben Gibson from e-par gave a talk on managing OH&S and risk in the workplace. Elizabeth Jansz then gave an industry education update which was followed by John Shannon and Matt Oliver (both Melbourne Grammar) who gave a talk on the facilities and wicket preparation at the three campuses. John Neylan then gave a brief update on the trials he is conducting for STA on *Poa annua* control in warmseason grasses.

Following a delicious lunch our guest speaker Kevin Sheedy entertained the crowd for almost an hour with many football stories and some of the innovations that he has implemented. Kevin then drew our raffle tickets for a Melbourne Storm game and a table at The Footy Show.

There have been some changes in the STA Victoria office recently with our new phone number being 0439 089 005 while our new postal address is P.O. Box 1100 Sandringham, 3191. The STA would like to take the opportunity to thank **Kathryn Walker** (Mikkat Management) for all her work over the past 18 months in the administration of the association and would like to wish her all the best for the year. We would also like to welcome Jan Fenton who will be taking on the role of administration officer.

As this edition was going to print, STA Vic was gearing up for the ASBA/STA Field Day on 17 September at Eltham College. The programme included planning development, project management, high performance teams and the latest in turf technology.

GARRY WOOLARD TREASURER, STA VIC

STANZ STANZ Special Florid Association NZ Inc.

e are currently entering that crazy time of year known as 'code change over' which includes the ever-shrinking renovation window. This constant balancing act of supplying our sporting codes with increased playing hours on our turf, while at the same time trying to maintain a healthy playing surface, appears to be getting tougher each year.

If we let the balance swing too far we put our industry standards at risk and undermine the job satisfaction of our turf managers. This will be a key discussion topic at the annual STANZ field day coming up in November at Mt Smart Stadium in Auckland.

We are also gearing up for our National Turf Conference in Auckland next winter which will have a focus on 'Innovation and technology transfer to create step change'. As an industry we have always worked smarter with the resources we have available to us and coming together to exchange knowledge is a critical part of this

The accompanying photo is a perfect example of utilising technology to work smarter by installing synthetic reinforced turf into the soccer goal mouth of a council sand carpet field. This was taken at the end of the season, not the beginning – will blow outs be a thing of the past?

KELLIE ROSE CHAIR, STANZ



GCSAWA

early 60 superintendents, greenkeepers and trade converged on Margaret River for the GCSAWA conference in mid-August. Speakers during the two-day event included the Bradbury brothers, Justin and Nathan, from Sydney's Bonnie Doon and Eastlake golf clubs, John Neylan and 2015 AGCSA award winners Simon Bourne (Excellence in Golf Course Management) and Nick Kinley (Claude Crockford Environment Award).

Nathan Bradbury, superintendent at Eastlake since 2010, gave an insight into his current and previous working life. The public access Eastlake is in a unique location as it is surrounded by high profile private clubs such as multiple Australian Open host venues The Lakes and The Australian as well as Bonnie Doon. Nathan spoke about his experiences at Eastlake as well as his time in the USA at Kinloch, Virginia where he did an internship. Interestingly he arranged this opportunity off his own bat rather than through The Ohio Program which highlights his passion for the industry.

Justin Bradbury spoke about the Stage Two course redevelopment works recently undertaken at Bonnie Doon and the proposed works for Stage Three. This next stage is currently at council for approval and it is hoped will be finished prior to the completion of a large apartment development adjacent to the work site. The apartments may add to the complex location of Bonnie Doon as they are directly opposite the maintenance sheds. Justin also spoke about his time in the USA where he worked for a number of years at Congressional Country Club. During this time he was involved in both the greens reconstruction programme and also the 2011 US Open. He also gave an insight into his time at Scarsdale in New York.

The ever-popular John Nevlan presented on sand greens construction and benchmarking in the workplace. Neylan's presentations are always thought-provoking and these two were no exception as he generated many questions from the audience.

AGCSA Award winners Simon Bourne (Cottesloe GC) and Nick Kinley (Hartfield CC) both spoke about the respective works undertaken at their courses which saw them honoured at the recent 31st Australian Turfgrass Conference along with GCSAWA Graduate of the Year Rohan Janeway.

Other presenters during the event included Brad Anderson who provided an update on works at Sun City CC which is being carried out under the watchful eye of Ogilvy Clayton Cocking Mead. The audience were particularly interested in the use of the 'barrancas' which are designed to move drainage water from a new subdivision adjacent to the course. Anderson also spoke of his ongoing battle with the course's huge kangaroo population.

Trevor Strachan (Lake Karrinyup CC) presented his method of recording information associated with staff time management and Phil Moylan (Gosnells GC) gave a powerful presentation on stress management. Phil's openness about his current and previous employment was excellent and he described how his time away from the industry gave him the opportunity to recharge and think about how he could handle changes in the workplace better if the situation arose again. Phil's honest appraisal of his possible own shortcomings in the past was a breath of fresh air and he should be commended on his willingness to share with those attending.

The GCSAWA AGM was also held during the conference with Melville Glades superintendent Neil Graham re-elected as president. With Adam Strachan (Secret Harbour) not seeking re-election, the new committee for the coming year is:

- President: Neil Graham (Melville Glades GC)
- Vice-president: Idris Evans (WA GC)
- Secretary: Trevor Strachan (Lake Karrinyup CC)
- Treasurer: Darren Wilson (Wembley GC)
- Golf Secretary: Jason Kelly (Royal Fremantle)
- Co-opted Trade Representative: Geoff Kirk

Thanks must go to all the GCSAWA committee for another successful conference with special thanks to Glenn Cross who was in charge of most of the organisation and was unable to attend. The GCSAWA committee would also like to thank the AGCSA Board for their attendance and input over the conference.

> **NEIL GRAHAM** PRESIDENT. GCSAWA



Bonnie Doon Golf Club superintendent Justin Bradbury was among the speakers at the recent **GCSAWA Margaret River Conference**

SIA

n the penultimate day in June the STA WA in conjunction with the Turf Growers Association of WA organised the biennial WA Turf Seminar at the Tompkins Park Function Centre in Alfred Cove. The principal host of this seminar is the WA Turf Industries Research Steering Committee (TIRSC) and is designed primarily to provide a platform to present the findings and ongoing progress of some of the recent research projects currently undertaken within WA and throughout Australia.

The seminar once again included a trade show element and through the networking opportunity that these events engender helped communicate some practical and positive applications that will continue to showcase the economic, health (social) and environmental benefits that living turf brings to our communities.

Days like these are also a fantastic resource to survey the attendants for future information and research needs.

The WA Turf Seminar 2015 was our most well attended event to date with more than 200 registered delegates, presenters and exhibitors. The day's agenda of presentations was themed upon the emergence of some iconic major sport turf surfaces throughout WA.

At the STA WA AGM held the following Wednesday, my fellow executive committee members Clint Betts, Hugh Gardner and I were returned to office along with the generous assistance by Steve Reeves, Matthew Lane and John Forrest signing on to help with events.

NZGCSA •



One of Kauri Cliffs' planting corridors showing both well established (foreground) and recently expanded (distance) native plantings

une saw another extremely successful New Zealand Fine Turf Seminar (NZFTS) hosted by the Wellington Golf Course Superintendents Association. With 170 or so delegates and trade reps, a strong programme and a focus on camaraderie and getting to know as many new people as you can, the fine turf seminar model has proven hugely successful over the last decade.

During the seminar the NZGCSA held its AGM with the Board re-elected unopposed. The Board comprises president **Brendan Allen** (The Hills), **Greg Swafford** (Titirangi Golf Club), **Steve Hodson** (Westown Golf Club), **Dane Hawker** (North Shore Golf Club), **Martin Burger** (Whitford Park Golf Club) and **Jason Perkins** (Omanu Golf Club).

The 2nd Future Turf Managers Initiative (FTMI), which is a partnership between Jacobsen and the NZGCSA designed to provide some extra personal development and mentoring for future industry leaders, was held in Wellington following the NZFTS. Stuart Baird (Akarana Golf Club), Daniel Cawley

(Whangarei Golf Club), Adam Dyet (The Kinloch Club) and Wendy Hornemann (Pakuranga Golf Club) spent a day and a half using the Tetramap framework to enhance their communication, staff management and conflict resolution skills. Mentors John Spraggs (Royal Wellington Golf Club) and Brendan Allen, along with Chuck Grief and Karen Proctor from Jacobsen, were on hand to share their experience.

The winner of the 2015 NZGCSA Environmental Award, which is supported by PGG Wrightson Turf, has been announced and is Kauri Cliffs and course manager Andy Wood. The judges deemed Kauri Cliffs to be the clear winner and were impressed with the detailed application, the quality of the supporting evidence and what they saw during the judging visit.

Kauri Cliffs has been around for 15 years now and the positive environmental improvements they have made are testament to the long-term commitment of owner Julian Robertson and the staff, led by Andy Wood and his assistant Andrew Moyle who have been there since the start. One thing that stood out for the judges was the 'buy-in' of staff and the genuine pride they have taken in greatly improving the landscape and natural environment and reducing the environmental footprint of the golf course as time has moved on.

The other finalist was from the other end of the golf resource spectrum in NZ. **Grant Saunders** from Ashburton Golf Club put together a quality application and is following a sustainable low input, low irrigation model, setting a responsible example in a part of NZ where rapid expansion of high input dairy farming is facing increasing environmental scrutiny.

BRENDAN ALLEN PRESIDENT, NZGCSA

GCSAQ 🖎

he new GCSAQ committee had its first planning meeting on 3 September after the recent Maroochy River Golf Club AGM. The committee comprises:

- President: Ben Tilley (Headland GC)
- Vice-president: Shaun Cross (Byron Bay)
- Treasurer: Stu Campbell (Maroochy River GC)
- Secretary: Rob Bloom (Pelican Waters)
- Committee: Brock Agnew (Sanctuary Cove GC), Phil Soegaard (Lakelands GC), John Halter (City GC) and Brendan Clark (trade rep – e-par)

As this edition of ATM was going to print planning for our Turf Industry Day, to be held at Lakelands Golf Club, was nearing completion with strong participation from our sponsors. The GCSAQ is also planning to launch its presence on social media over the coming months to promote the work of the association and provide a platform for our members to interact.

I have also had a meeting with Mal Caddies and Kristy Pratsch from the STA Qld and we have agreed to create some cohesion between our two associations by combining some of our future member's days. The first joint day will be an STA/GCSAQ bus tour field day in October.

The GCSAQ committee has had some communication with Matt Roche from ASTC regarding the preservation of the Warm Season Turfgrass Collection at the

former Redlands Research Station site. The collection has nearly 200 turf varieties comprising 15 genus and 27 species and is being relocated to a purpose built facility 40 minutes south of Brisbane.

A successful day was also held at Royal Queensland Golf Club (host superintendent Marcus Price) on 1 September with 32 members attending a safety compliance shed walk conducted by e-par. The observation, question and answer format of the day provided plenty of discussion and enlightenment. E-par is proposing to continue these days in the New Year on the Sunshine Coast and Gold Coast.

BEN TILLEY PRESIDENT, GCSAQ







The Lowara e-SV range of stainless steel vertical multi-stage pumps are the ultimate in energy efficiency, easy installation and economical operation.

Our new Lowara pumps system has made a huge difference to our watering window reducing it from around 14 hours to only 8-9 hours which is important as we don't interfere with golfers or competitions and we can also take advantage of the off peak electricity rates. I have greater control of the system. The new Lowara system pumps out 95L/second and can pop up around 45 sprinklers at any one time.

Brown Brothers Engineers were brilliant and very quick to assist where required. Their team were knowledgeable and reliable, and had a bit of personality! I cannot fault Brown Brothers or our Lowara pumps.

> Jason Berkhout 2IC - Thurgoona Country Club Resort, NSW

e-SV[™] Series

- Extra efficient
- Easy to maintain
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