

# Turfgrass



VOLUME 16.2 MAR-APR 2014

MANAGEMENT JOURNAL

## Brothers in arms

Bradburys make their mark

## Sun, sand and turf

Doha Golf Club, Qatar

## Manuka makeover

Canberra's new-look StarTrack

## Regional profile

Pambula-Merimbula GC

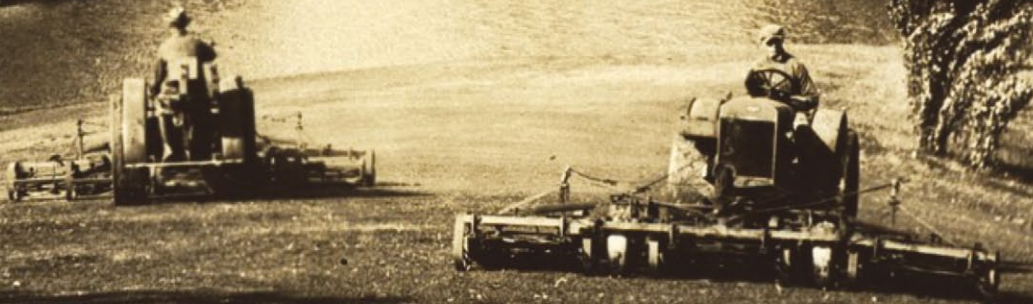
## Tournament calibre

Open season at Victoria, 13th Beach



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## COVER

**13th Beach:** The par 3 16th on the Beach course at 13th Beach, Victoria. 13th Beach recently hosted, for the second year running, the combined Men's and Women's Victorian Open.

**Photo:** Brett Robinson.



## LEAD STORY: Brothers in arms

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From mowing a back yard cricket strip with their dad's Victa lawnmower, brothers and best mates Justin and Nathan Bradbury now find themselves working across the fence from each other as course superintendents in Sydney's eastern suburbs. After a number of years working in the US at the likes of Congressional Country Club, last May Justin returned home to start his tenure as superintendent at Bonnie Doon Golf Club. Having his younger brother next door at Eastlake Golf Club has not only made for an easier transition back home, but it has also reignited a friendly sibling rivalry that goes back to their formative days growing up in Yanderra, NSW.

## FEATURES

### Manuka a StarTrack

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Between July 2013 and January 2014, Manuka Oval in Canberra was transformed with the construction of a new Legend couchgrass wicket table and Grand Prix couchgrass outfield. Head curator Brad van Dam looks at what is a three-stage project to ensure the arena remains an integral part of the sporting fabric in the ACT.

### Middle East master

18

When David Cassidy left Sydney in 2005 for the Middle East, little did he know that nine years on he would still be there plying his trade as a golf course superintendent. Heading the maintenance team at Doha Golf Club in Qatar for the past six years, Cassidy gives ATM an insight into his course operations and the club's flagship event, the European Tour's Commercial Bank Qatar Masters.



### Tournament test

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Victoria Golf Club and 13th Beach were in the tournament spotlight in February when they hosted the Australian Women's Open and Victorian Open respectively. ATM editor Brett Robinson caught up with course superintendents Ian Todd and Steve Hewitt to see how their preparations went.

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The past summer saw the first drop-in cricket pitch in Tasmania put through its paces at Launceston's Aurora Stadium. ATM looks at its construction and performance.



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In the fourth instalment of a series tracking the development of the new Gardiners Run Golf Course development, superintendent Alan Greatorex looks at greens construction.



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AGCSA president Peter Lonergan recounts his recent trip with AGCSA general manager Peter Frewin to attend the BIGGA Turf Management Exhibition in the UK and visit to Syngenta's research and development facility in Switzerland.



### GRASS-ROOTS WITH JOHN NEYLAN Turf not worth its salt? 36

A hot, dry summer in most parts of Australia has likely meant an increase in the concentration of salts and sodium in water supplies and soils. ATM columnist John Neylan takes a timely look at the impact of salinity and sodium on turfgrass.



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### Contributors to Australian Turfgrass Management Journal Volume 16.2 (March-April 2014)

Justin Bradbury (Bonnie Doon GC); Nathan Bradbury (Eastlake GC); David Cassidy (Doha GC); Bryan Dunn (Aurora Stadium); Phil Ford (PGG Wrightson Turf Australia); Peter Frewin (AGCSA); Alan Groatorex (Gardiner Run GC); Martyn Hedley (STA QLD); Steve Hewitt (VGCSA); Danny Hull (STA ACT); Jim Hull; Steve Jacobsen (NSWGCSA); John Kedey (Aurora Stadium); Peter Lonergan (GCSAQ); Ian Mckendry (STANZ); John Neylan (Neyturf); Andrew Peart (AGCSATech); Richard Stephens (Turf Australia); Ian Todd (Victoria GC); Brad van Dam (Manuka Oval); Jim Vaughan (Turf Queensland); Pat Wilson (Pambula-Merimbula GC); Richard Winter (Pitchcraft).

# One for the good guys

As this edition was in the final stages of production, news came through that Lake Karrinyup course superintendent Trevor Strachan had been bestowed the Western Australian Golf Industry Recognition Award. I'm sure many, like me, felt a sense of pride in Strachan being honoured with the game's most prestigious award in that state, one that has been very much deserved after some 40 years in the industry.

Awards come and go and are often quickly forgotten, but Strachan's achievement is one which carries great significance. To be deemed an individual who has made a significant impact on the whole of the golfing industry is quite an accomplishment, particularly in one where the role of superintendent is often maligned. For all the rubbish you hear of superintendents being subjected to the unrealistic demands of management and singled out by self-serving individuals who feel they know how to run a golf course, it is refreshing to see one of our own win the recognition of an industry. And a popular win it was too.

Being the humble man that he is, speaking with Strachan a few days after receiving the award, he had this to say when asked what it meant to him: "I suppose it means a fair bit especially after so many years and the hard work you have put in. It's a job I love and you certainly don't go out there with the intention of winning these sorts of awards. At the end of the day though it's not about me. I really believe (the award) is a win for all the superintendents in this state and around the country because we cop plenty. To actually win something that is a whole of industry award – administrators, professionals, management – it demonstrates that superintendents are now being recognised for the major role they play."

Like any superintendent Strachan has had his battles over the years, some worth fighting, many not worth his time. During all these times he has carried himself in the utmost professional capacity and has garnered the respect of not only the superintendent community but also many other sectors within the industry. That of course has been backed up by an unstinting work ethic and approach to his job and also a willingness to make himself available and readily approachable to assist others.

His is an impressive CV and since his early days as an eager apprentice at Melville Glades during the 1970s, Strachan has risen to be one of his state's and country's leading superintendents. He has left an indelible mark not only on course maintenance but also golf course construction, having built and grown-in three of the state's premier facilities – The Vines, The Links Kennedy Bay and The Cut. During his nine years at The Vines he prepared the course for four Heineken Classics and a Johnnie Walker Classic.

This July Strachan will notch up 14 years at Lake Karrinyup and as with his previous postings he has overseen significant changes to this golfing institution. You would be hard pressed to find a more organised and documented maintenance set-up than Karrinyup, while on course he oversaw the greens redevelopment project between 2006 and 2008. For the past two years he has prepared the course for Australia's richest golf tournament – the \$US2 million Perth International – and will do so again this October.

As Strachan will quickly tell you, however, he is only as good as the team around him and he has been blessed over the journey to not only have worked at some high profile courses but also to have had good people around him. That extends to the home front too and it was great to see all of the family – wife Leanne, son and Secret Harbour superintendent Adam, daughters Michelle and Emma and their partners – there to witness the standing ovation as Strachan collected his award. Congratulations Trevor, ATM salutes you and your achievement. Enjoy the read...



Brett Robinson, Editor



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# Forging stronger ties with international superintendent bodies



According to the calendar another summer has come and gone but for many parts of the country the long dry continues. With the long range prediction for average or below average rainfall for much of the country, let's hope Mother Nature has failed to read the forecast and we get a nice early autumn break.

In January, I had the privilege to accompany AGCSA president **Peter Lonergan** to the United Kingdom and Switzerland to represent the AGCSA at a couple of events. The main purpose of the visit was to attend the International Summit (a gathering of superintendent associations from around the world) which was held in the lead up to BIGGA Turf Management Exhibition in Harrogate (BTME).

The Summit was a great opportunity to meet likeminded associations from around the world and what was most interesting was that no matter where in the world you came from most were facing similar issues to us. It was pleasing to see that the information sharing and collaboration between these organisations that started at the same event in Australia in 2012 continues. I feel that the ties between the international organisations will continue to grow and get stronger with time.

Prior to the Summit we had the opportunity to visit the headquarters of AGCSA Gold partner Syngenta in Basel, Switzerland. Our visit to Syngenta's Stein research facility (pictured above) was certainly one of the highlights of my time in the turf industry. To see firsthand the work that is required to get a product to market was enlightening. Peter Lonergan has written an article featured later in this edition which details some of the visit. I would like to thank **Henk Smith** for arranging the visit and **Eric Brown** and **Austen Sutton** for making time in their busy schedules to afford us this wonderful opportunity.



Back at the BTME, I had the opportunity to attend a workshop that was presented by **David Bancroft-Turner** who will be one of the keynote speakers at the 30th Australian Turfgrass Conference in June. David has a very interesting background which includes a great deal of experience in the corporate world. This experience and his knowledge of boardroom battles and deals gives him a great insight into what politics goes on in the workplace. David will be presenting a day-long workshop and will also present during the Plenary session on Tuesday. I can highly recommend this workshop and I am sure anyone who does attend will get something out of the day.

## ALL SET FOR GC 2014

Work in preparation for the Gold Coast conference (22-27 June) continues. The keynote speakers for the event are confirmed and the programme for the week is now set – see the AGCSA website [www.agcsa.com.au](http://www.agcsa.com.au). Registration is now open and what is pleasing is the amount of registrations we have already received. There have been a couple of changes to the registration process for the conference. For instance, if you intend to come to the Monday workshops, presented in partnership



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with Jacobsen, make sure you get in early. The workshops will be complimentary for those that take the option of Early Bird registration. For registrations after the Early Bird cut off (14 April) there will be a charge.

There will also be some changes to the social functions during the week. The Syngenta President's Dinner (including AGCSA Awards ceremony) will now kick off the week on the Monday night. On Thursday night the week will wind up with a casual farewell bash which is presented in partnership with Everris. Also, a reminder to consider nominating one of your peers for one of the prestigious AGCSA Awards; this is a great opportunity to showcase the great work that is being done in our industry.

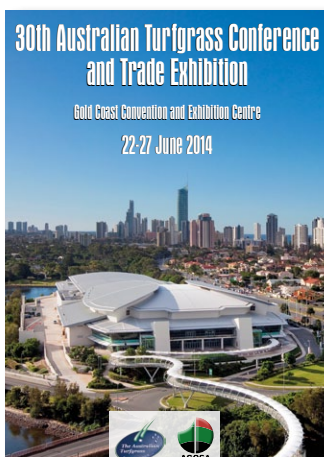
### WELCOME NEWS

As readers of Australian Turfgrass Management Journal you are no doubt aware that it is the premier turf journal in the region. I am pleased to advise that we have recently received notification from Horticulture Australia Ltd advising that we have received further funding until 2018 for the journal. This funding recognises the fine work of all those that are involved in the production of the journal, in particular editor **Brett Robinson** and art director **Jo Corne**. ATM is a great vehicle for publishing research and turf specific articles to the wider turf community and I would like to thank HAL and the Turf Industry Advisory Committee for their continued support of the journal.

### AND FINALLY...

I would like to thank all those who have offered support and comfort following the passing of my father in January. This column is called Foreword Thinking but at times like this it is difficult not to look back. My dad was a huge influence on my life and I am extremely proud of what he achieved. While I wish he was still with us I am happy he is now at peace and is no longer in pain.

Please feel free to contact me at any time if you have an issue or suggestion; feedback is greatly appreciated. I hope autumn treats you well and I look forward to catching up when our paths next cross. 🙏



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Separated by tens of thousands of kilometres for the past six years, brothers Justin (left) and Nathan Bradbury are now in the unique position of working as course superintendents across the fence from each other in Sydney



WORDS AND PHOTOS: BRETT ROBINSON

# Brothers in arms

Growing up in Yanderra, NSW, Justin and Nathan Bradbury were always destined for a career in sport. From mowing a cricket pitch with their dad's Victa lawnmower, the brothers now find themselves working next door to each other as course superintendents at Bonnie Doon and Eastlake golf clubs in Sydney's east.

**W**e've all heard of middle child syndrome, right? Well, Nathan Bradbury reckons he's a textbook case – always the smartarse, always the one getting into trouble, always attempting to outdo his siblings, especially older brother Justin. His father nicknamed him 'Sparra' from the moment he was born on account of his small size. Nathan reckons it was more because he always had his mouth open for a feed or his constant efforts to be the centre of attention. Ask Justin and he is quick to confirm that nothing has changed some 30 years later.

Sitting in the refined clubhouse of Bonnie Doon Golf Club in Sydney's eastern suburbs, Justin and Nathan Bradbury sip their cappuccinos and recall with a collective smile their formative days growing up in Yanderra, a small village in the NSW southern highlands 20 minutes north of Bowral. It seems a world away from where they now find themselves, working, as fate would have it, as golf course superintendents across the fence from each other, Justin at the private Group 1 Bonnie Doon and Nathan at the public access Eastlake Golf Club.

Their journeys to get where they are today have taken them both from Bowral, to Sydney, the United States and back to Sydney again and with a few things falling into line they now find themselves in the unique situation of being neighbours. It's a story of two best mates, competitive by nature, who are now channelling that friendly sibling rivalry into helping produce the best playing surfaces they can for their respective clubs.

## COUNTRY BLOOD

From good country stock – dad Mark hailed from Tamworth and mum Margaret from Bathurst – the Bradbury brothers, together with younger sister Meagan, had your archetypal country upbringing. For the boys, sport ruled. They bled it – rugby league, soccer, but more than anything else, cricket. Three hundred and sixty five days a year the backyard of 21 Cobham St was transformed into 'Yanderra Stadium' and every kid in the village would jump the Bradbury fence and partake in epic matches that would last well past twilight.

During summer the boys would fire up their father's Victa rotary lawnmower (perhaps a sign of things to come), put it down a few notches (much to their father's delight) and proudly scalp out a cricket pitch. With the half taped tennis ball moving off the seam as wildly as a Mitchell Johnson thunderbolt, many centuries were saluted, while the footmarks worn into the turf became something of a badge of honour.



Come winter and the tape went from tennis ball to around the head. The boys would kit up in the changing rooms (the laundry) before running down the back steps (it was mandatory that the other players clapped the others as they came out) and emulating the jinking dummy half runs of childhood heroes Andrew Johns and Jason Taylor.

It was the sort of upbringing which helped to forge a life-time bond between the brothers. A friendly yet spirited natural competitiveness between them always bubbled underneath the surface and you could always guarantee a little bit of extra back and shoulder was put into every bouncer and hit up. Nathan recalls with a chuckle the time Justin persisted on bouncing him. Cracking it, the younger sibling top-edged the next one straight through the back window. Never has a fence been leapt quicker.

"It (Yanderra) was a great place to grow up and you look back now and think how fortunate we were to have that classic country upbringing," recalls Justin. "Every kid knew every other kid and you'd ride your bikes around the streets until the lights came on which was the signal to head home. Mum and dad were great in keeping us grounded. We never wanted for anything, but you were taught you had to work hard for things. All they asked for in return was honesty and respect.

"Nathan was your typical cheeky younger brother. We shared a room until I went to high school and as soon as we got home from school we were out the back playing cricket or rugby which usually ended up in a wrestle or fight. There was always plenty of niggles to see how far you could push the other, but as soon as you came in for dinner all was forgotten and we were best mates again."

"I was an asshole, admit it," interrupts Nathan. "There were lots of cheap shots – like the time he tried to kick me 'downstairs' and I moved out of the way and he broke his toe on the doorknob. Justin was the smart one, though. He did some bad stuff but never got caught. I was the dumb one who always got caught."

## BRANCHING OUT

With sport so central to their lives, it was little wonder the Bradburys would eventually find their way into turf management. Justin, the 'golden child' as Nathan dubs him on account of having made it through to the end of Year 12, had early designs on a career in sports science and physiotherapy, but ended up taking on an apprenticeship at Bankstown Oval in Sydney's southwest. Four years later he was on the crew at Bowral Golf Club and six months later was assistant superintendent, a position he would hold for three years.

By contrast, Nathan, three years Justin's junior, had somewhat of an aversion to school. In the first week of Year 11 he was 'encouraged' to channel his efforts elsewhere and so took on an automotive traineeship. Not enjoying that and seeing the good time his brother was having, Nathan followed down



the greenkeeping apprenticeship path and secured one at what was then Bowral Country Club, the town's second course. He then completed the final year of his apprenticeship at Bankstown Golf Club.

The US then beckoned for both Bradburys and it proved to be the catalyst that ignited their passions for greenkeeping. For Justin, the US came about as a result of a failed bid to head to the UK. He had arranged with Bowral to take the winter of 2003 off to play a season of cricket there, but despite arranging everything the visa fell through last minute. Left holding a plane ticket, Justin quickly refocused and secured a summer placement at Woodloch Springs Country Club in Pennsylvania, USA.

It was a pivotal five months in Justin's life both professionally and personally. Not only did working at Woodloch give him an insight into what could be done on a golf course, he also started to play the game more and became hooked. Most significantly, however, he met his future wife Erin who five months later was heading back Down Under with him.

While at Woodloch, Justin impressed enough to be offered the assistant position and upon returning to Bowral the plan was to hand in his resignation and head back to the US. That was quickly broadsided when the superintendent at Bowral told Justin he was leaving in a few months time and would be recommending him as his replacement. At only 25 it

**After six years at Congressional Country Club and then Scarsdale Golf Club, Justin Bradbury returned from the US in May 2013 after being appointed the new superintendent at Bonnie Doon Golf Club**

**Since taking over as superintendent at Eastlakes in October 2011, Nathan Bradbury has instituted a number of changes which have helped to significantly improve the conditioning of the public access course**





Justin Bradbury arrived at Bonnie Doon midway through a major course upgrade. With stage one already complete, stage two got underway just weeks into his tenure. Pictured are two of the four new-look holes that will open this April

was a big decision to make, but with the support of Erin he chose to take on the role at Bowral and get some early runs on the board as a superintendent.

After nearly three-and-a-half years honest toil at Bowral, the lure of the US started to prove too irresistible. Reaching out to The Ohio Program's Mike O'Keeffe to see what opportunities were available, Justin would end up getting a placement in 2007 at one of the country's elite courses – Congressional Country Club in Washington DC.

Engaged by then to Erin and closing in on 28, Bradbury didn't quite fit the typical profile of an Ohio intern and O'Keeffe certainly had his doubts. In fact, Justin recalls the conversation where O'Keeffe warned him that he risked losing one of two things if he did come over – his fiancée or his job.

Five years later and Justin had risen to be first assistant at Congressional, been a part of the crew that reconstructed all greens on the famed Blue Course and played a leading role in preparing the course for the 2011 US Open, achieving one of his major career goals in the process. Nowadays Justin takes great delight in reminding O'Keeffe whenever he sees him that he didn't lose either.

For Nathan, getting to the US required a little more encouragement, mainly from Justin and Erin. Having come to the end of his apprenticeship at Bankstown, just a few weeks after Justin had departed for Congressional, Nathan was packing his bags bound for the immaculate Kinloch Golf Club in Richmond, Virginia.

To this day he still misses the place, but after eight months there he was ready to return home. A stint at The Australian followed before heading

to Bowral Golf Club where he spent 18 months as assistant superintendent, like his brother before him. In August 2010 he was back in Sydney taking on the assistant role at Eastlake Golf Club and the following year found himself elevated to the top job.

"I learnt more in the eight months at Kinloch than I did in the four years of my apprenticeship," says Nathan. "There's something about how they do it over in the US and that's when golf course maintenance really grabbed me. I was in a bit of rut back here at the time, but that experience really opened me right up. I don't think I'd be where I am now if it wasn't for that.

"You either sink or swim in the US. They don't put their arm around you and say 'you'll be right'. They're straight to the point and that directness really toughens you up. You have to stand up for yourself, but if you show you can work hard and have the right attitude, they'll respect you."

Adds Justin: "Working in Washington DC and New York as I did, you quickly learn a lot about yourself. The work is tough and the demands are huge, but geez it makes you a better person. I was still learning things the day I left! I'm a huge advocate for going over there and I only have to look at Nathan to see how much he grew as a person by spending that time there."

## THE PRODIGAL SON RETURNS

While his time at Congressional was career defining, those four and half years proved tough on Justin's relationship with Erin who was based four hours away in Pennsylvania. Following the 2011 US Open, Justin made the (sensible) decision to find a role closer to the love of his life and picked up the assistant's job at Scarsdale Golf Club, about 30km north of downtown Manhattan, in January 2012. Marriage followed that September and, as marriage often does, some serious decisions needed to be made, the central one being where were they going to spend the next chapter of their lives.

Nathan, who by this time was also married (to Brooke) and the proud owner/operator of a little boy (Ryder), had all but resigned himself to the fact that his brother and sister-in-law were staying Stateside. It was therefore with some exuberance that he reacted to the news that Justin and Erin had put in motion plans to call Australia home.

It was not long after discovering that his best mate was on his way back that another bit of news filtered through that would ultimately see the brothers reunited in the most unexpected of ways. In early December 2012 Nathan received a call from then Bonnie Doon superintendent David Scaife telling him he was moving on after more than 10 years. Before the job had even been advertised Nathan had all but submitted Justin's CV for him.

It was the first job Justin had applied for in Australia since making the decision to move back and the prospect of working next door to his brother seemed almost too good to be true. More importantly

though, it was the sort of club and challenge he was looking for and one that would give him a chance to showcase the skills and knowledge he had gleaned during his time in the US.

Sure enough he soon found himself being flown out by Bonnie Doon in early February 2013. Only Nathan knew he was heading back for the interview and you can imagine the reaction from mum and dad when, after dropping past Nathan's place for a BBQ the day Justin had arrived back, Justin surprised them by walking around the corner.

After a day inspecting the course, Justin then spent hours at Nathan's home putting the finishing touches to his PowerPoint presentation. The interview went well and it was while Nathan was driving the two of them back from a family reunion in Bathurst a few days later that Boonie Doon general manager Bill Francis called to offer him the job. Having spent the past six years separated by 16,000 kilometres, the brothers would soon be working just 1500 metres from each other.

"We were driving between Lithgow and Katoomba and the phone kept dropping out, so we pulled over and I called back," recalls Justin. "It was kind of surreal knowing that I was coming home but more so to be working next to Nathan. I've always been very definitive with timelines and career goals, but I have also been very fortunate to have things fall into place along the way and this was one of them."

## ROLES REVERSED

Starting his tenure at Bonnie Doon on 1 May 2013, almost one year on and Justin has had little if any time to catch his breath. Not only has he had to get his head around a new course, acquaint himself with warm-season grasses and readjust to the different greenkeeping culture that exists in Australia, he also arrived with Bonnie Doon in the midst of a full scale rebuild. Stage one of the Ogilvy-Clayton redesign was completed in 2012, with stage two works comprising four holes kicking off just months after Justin had started.

Whether through accident or good design, a few issues back in the US (mainly with their beloved dog) meant Erin didn't arrive in Australia until November which gave Justin the chance to fully get a feel for the course and his new role. However, he readily admits that he called on the knowledge of his younger brother on more than a few occasions.

"I rested on Nathan a fair bit when I first came back," divulges Justin. "We are both operating under different circumstances – we have couch



**Eastlake may be wedged between two of Sydney's major private clubs in Bonnie Doon and The Lakes, but its condition for a public access course that pumps through nearly 50,000 rounds per annum is always at a premium**

fairways/bent greens, Nathan is kikuyu fairways and *Poa*/bent greens – and have our different issues, but to have him over the fence, especially with his years' of experience dealing with the climate and conditions here definitely enabled me to settle into the job much quicker.

"It's everything from getting the heads up on how the coastal winds play a major role in the agronomics here, knowing who the sales reps are, picking his brain on programmes that have and haven't worked, through to being able to borrow equipment or some product. One of the big things I have had to get my head around has been all the environmental and OH&S legislation changes here in NSW. Nathan has done a heap of work at Eastlake so it has been great to be able to see what he has done and borrow from that.

"Then there are the little things. The other day I was out on the course and saw Nathan over the fence driving past and he just flips me the one finger salute! You might be having a crap day and he might be having the best day, but you'll have a moment like that which puts a smile on your face and puts things back in perspective."

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Having Nathan over the fence has made elder brother Justin's transition back home a lot smoother and on more than a couple of occasions he has sought the counsel of his younger brother



Having the head start on his older brother, Nathan too has had a busy first few years since taking charge at Eastlake in the latter part of 2011. As well as the environmental and OH&S improvements alluded to – a new washdown bay and water treatment system, a shed upgrade to rectify safety issues and an update of all policies and procedures – Nathan has undertaken a mountain of work on course to not only improve the playing surfaces but also to help future-proof it.

As well as new irrigation control system, pump upgrade and a new 500m<sup>2</sup> practice green, a strict renovation and fertiliser/amendment programme on both the *Poa*/bent greens and kikuyu fairways has paid huge dividends, resulting in annual rounds increasing to nearly 50,000.

Both admit that having their craftsmanship on display for the other to see every day has certainly reignited that friendly sibling rivalry from years earlier and being the new kid on the block, so to speak, Justin is under no illusion that his younger brother has set the bar high.

"I'm getting sick of my members coming up to me and asking why Eastlake is looking so good and consistently good all year around," laughs Justin. "It's probably something we don't speak about openly, but that natural competitiveness is there and he is driving me to be better and I'd like to think I'm driving him to be better as well. The thing that makes me proud is that Nathan is maintaining a public course at a private level. The playing surfaces he is providing over there, the members are being spoilt, they really are."

"I'm here to keep these private guys honest," jokes Nathan. "You certainly can't screw up with the brother being over the fence, but that's what pushes you I guess. You have to be passionate about this job and as the younger brother I certainly don't want to disappoint the older brother."

## MATESHIP

While their personalities differ significantly – Justin is the laid back one who organises things in piles, while Nathan is the highly strung, pedantic one, "Just ask my poor crew!" – the brothers do share some similar traits which hark back to their country upbringing. From a turf perspective it's about keeping their greenkeeping practices simple and not over-complicating things. Putting in the honest hours and leading by example are also cornerstones as is the most important quality of all, having your best mate's back at all times.

"I was best man at his wedding and he was best man at mine, so regardless of whether we ended up working next door to each other, we would still be helping each other out," says Justin. "There's a mutual respect. We both have our own jobs – I'll do things my way and Nathan will do things his way – but no matter what we'll always be there for each other if push comes to shove."

And the last word – well, that fittingly goes to the self-proclaimed ratbag of the Bradbury clan: "I know Justin was very excited when he got the job at Bonnie Doon, but I think I was more excited than him," concludes Nathan. "It was pretty tough having him overseas for those six years. It was great to see him do so well in the US, but there were times there where you not only needed your brother but your best mate as well."

"What made it really hit home to me was when Ryder was born. I was worried that Justin wasn't going to see him grow up, so when he got that phone call in the car, inside I was so rapt. I'm blessed to have him next door and it's great to not only do a job I love but have someone across the fence who has that same passion and who I know will support me. It's also great to be able to hang shit on him on a daily basis and share an Aussie beer or two with him once again." 🍷





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Between July 2013 and January 2014, Manuka Oval was transformed with a new wicket table and outfield which had its first outing at this year's PM's XI match against the touring England cricket side

The recent redevelopment of Canberra's Manuka Oval, or StarTrack Oval as it will be known during the 2014 AFL season, had its genesis back in 2009. Consultations then with the community indicated that the oval was highly valued and should be retained as the capital's main venue for AFL and cricket. A three-phase master plan was subsequently drawn up to ensure that Manuka remained an attractive venue for first class sporting events and thus continue to be an integral part of the sporting fabric in the ACT.

The first action proposed was to install television broadcast quality lights. Six 47-metre high structures were completed in time for the PM's XI match in January 2013, with the first AFL premierships fixture under lights in Canberra between GWS Giants and St Kilda played in early April. The design of the lighting structures is unique, with the curved shape giving them a different look to traditional light towers at other venues around Australia.

The oval redevelopment works themselves, known as Phase 1A and Phase 1B, were the second and third stages of the master plan to ultimately rejuvenate and enhance the arena itself. In 2012/13, the ACT Government approved funding of \$5 million for Phase 1A works which were to include the upgrade of the playing surface and ancillary works. A Development Application was lodged in May 2013 and approved on 25 June 2013. Construction works started soon after the last AFL match on 6 July 2013 with completion before the PM's XI cricket match against England on 14 January 2014.

As part of the 2013/14 Budget, the ACT Government has provided further funding of \$4.056m for Phase 1B that will support day-to-day

operations as well as the ICC Cricket World Cup (CWC) matches that have been scheduled in 2015. Manuka will host three pool matches between 18 February and 3 March – Bangladesh v Afghanistan, West Indies v Zimbabwe and South Africa v Ireland.

These works, which will increase the capacity of the oval from 13,500 to 15,700 spectators, include:

- Integration of the new playing surface with the seating bowl;
- Two new rows of inner bowl seating;
- Infrastructure and facilities for media and spectators; and
- Re-seating of the existing bowl to replace degraded seats.

The overall playing surface has been reduced to accommodate the extra capacity by 1.5m around the entire boundary and has gone from just over 20,000m<sup>2</sup> in area to around 18,500m<sup>2</sup>.

Turf selection for the outfield was *Cynodon dactylon* var. Grand Prix to replace the existing common couchgrass surface. It was selected for its overall wear tolerance and shorter dormancy and dense upright leaf growth habit. The turf was grown in Windsor by Dad and Dave's Turf and was monitored regularly by myself and other independent turf consultants. Recommendations were given to the grower to assist with a smooth establishment period once in the ground at Manuka.

## Manuka a StarTrack

The oval's soil profile has also changed from a heavy loam to a USGA spec sand upon a gravel perched water table with a minimum infiltration rate of 150mm/hour. The sand was sourced locally by Schmidt Quarries.

## NEW DECKS

One of the most significant changes has been to the wicket table. The cricket pitch dimensions have increased from a five pitch block to a seven pitch block in width with the length reduced from 30m to 25m. In all, the wicket table has slightly increased in size by 75m<sup>2</sup>. The wicket block was turfed with *Cynodon dactylon* var. Legend which was used in the old block. Both the Legend and Grand Prix were independently selected for the project and were my preferences as well.

Unfortunately we were unable to use the same Lanyon wicket soil that has been used at Manuka Oval for over 80 years due to the stock slowly being exhausted. Oberon wicket soil was selected as the best option for the project, a soil we have used in our practice pitches for a few years and that has produced quality decks during this time.

The change in wicket soil will see the characteristics of the pitch alter as well. The Lanyon wicket soil was known to be fairly mundane once it lost its early moisture during a match. It was a non-

swelling clay with a higher content of silt and sand, which meant it did not get larger cracks break apart and would powder up. The sand content also meant that the bowlers could start to get the ball to reverse swing very early on in a match, however, it did not have as much pace or bounce compared to other soils. The Oberon soil, by contrast, is a swelling clay with a significant cracking pattern. It tends to crumble and has much more pace and bounce.

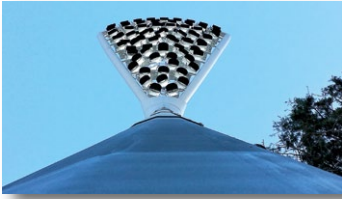
## DIGGING DEEP

Evergreen Victoria was engaged to undertake the Phase 1A works in readiness for the PM's XI match on 14 January. In a separate portion of the overall contract, Sydney-based Turf Drain Australia was engaged to construct the cricket wicket block. The reconstruction started the week after the last AFL Premiership fixture in early July 2013.

The first major exercise was the removal of an old redundant asbestos main pipe that ran the width of the field. Once safely removed the mass excavation started. Approximately 25,000 cubic metres of soil was removed, with about 8000m<sup>3</sup> of topsoil disposed of at the National Arboretum Canberra and the rest at Stromlo Forest Park.

As part of the excavation other infrastructure was removed including two irrigation systems, the boundary fence and concrete footpath, the existing wicket table plus the redundant heating cables below it and drainage system (which didn't work). The southern end of the oval was excavated to a sub-base depth nearly two metres below the old surface height with the northern end about 1m below the existing level.

In the latter half of 2013, Canberra's Manuka Oval underwent a significant makeover. With a new seven-deck Legend wicket table, Grand Prix outfield and a new AFL naming rights deal to boot, the nation's capital now has a state-of-the-art arena which will play host to three matches at next year's Cricket World Cup. Head curator Brad van Dam looks back over the redevelopment.



Above: Stage one of the arena upgrade saw the installation of six 47 metre broadcast quality light towers during the 2012/13 summer

Right: During the excavation contractors were prepping the spoil most nights under lights ready for the next day



The first area to be constructed was the cricket wicket block. This was recognised as the most important part of the project that needed to be completed well before the other areas so as to ensure there was consolidation of the wicket soil and overall maturity of the turf before the first match.

Turf Drain was engaged to construct the wicket block in the same vein as the Sydney Cricket Ground. First, a concrete retaining wall was built to encase the wicket soil and hold it in place. The top of this retaining wall is 150mm below the finish level. On the inside of the retaining wall a 9mm fibro-cement plinth was placed at approximately 30mm below the surface.

The wicket was then constructed with the following layers:

- 200mm road base with Bidim cloth placed over the top;
- 50mm of very coarse sand to the grade as the wicket finished surface;
- 200mm of Oberon wicket soil was placed in four 50mm layers with each layer compacted and laser levelled.

The wicket was completed before schedule and covered to stop moisture getting onto the wicket soil and compromising levels. By the end of September the wicket table was turfed with washed Legend couchgrass in maxi rolls. At this point the wicket table was handed back to me for the establishment of the turf and consolidation of the soil.

The wicket square was intensely managed for the first couple of months. The turf was initially rolled into the wicket soil to make sure there was good contact between the grass and wicket soil. The turf

was then watered and rolled (light) for approximately four hours in multiple directions until black.

The next day the pitch was cleaned of excess soil on the leaf with a high pressure hose then covered with growth cloths. These cloths were left on the turf for 2-3 day blocks or when frosts were predicted the next morning. Every time the growth cloth was removed the wicket square was either rolled in multiple directions or cut then watered.

Over time the weight of the roller was increased until we had a 2.2 tonne road roller on it. The height of cut was slowly reduced from 10mm to 6mm over a period of a couple of months and we also cut in multiple directions.

### TAKING SHAPE

Working concurrently with the construction of the wicket block was the shaping of the sub-base and the digging of a trench around the boundary which would hold the main trunk drain. In a separate trench also around the boundary, four 100mm power conduits and four 100mm communication conduits were laid, while a separate trench ran across the field and around the wicket square which contained power and communication conduits for the stump cameras and microphones.

Once the trunk drain was laid and the sub-base shaped, the herringbone drainage system was installed with 100mm ag pipe at 6m centres. The ag pipe was surrounded by 6mm drainage gravel and to a depth of 100mm above the sub-base.

Once the gravel was graded and laser levelled, a USGA spec sand was installed. Approximately 4500m<sup>3</sup> of sand was brought in which equates to 280mm in depth. The bottom 140mm of the profile is straight sand with the top 140mm mixed with 5 per cent cocoa fibre for some moisture and nutrient holding capacity. Once the sand was levelled, Evergreen's StaLok fibres were incorporated into the top 100mm of the profile. Dynamic Lifter and a turf starter fertiliser were applied to the sand profile before turfing.

In the photo on page 16 you can see a 20m wide square that had been turfed around the entire wicket



The first stage of the wicket construction saw a concrete retaining wall built to encase the wicket soil and hold it in place. The top of this wall is 150mm below the finish level

The first layer of the new Oberon wicket soil being spread





block. This was completed two weeks before turfing the rest of the outfield. The reason for this was that the area was identified as part of the outfield that would have higher and more intense activity during the PM's XI, therefore a longer establishment period was desired so that the turf was in optimum condition for the PM's match.

The remainder of the outfield turf was laid using small washed rolls of Grand Prix couch in six days, with the last rolls going down on 30 November 2013. The turf that was supplied was the best quality washed turf I have ever seen.

Within the outfield profile 10 Toro Turf Guard soil sensors have been installed into the playing surface. These sensors measure soil moisture, temperature and salinity at two depths and were installed in early February once the Grand Prix was established.

The new irrigation system is a Rain Bird Site Control with 8005 sprinklers using No.14 nozzles. Each sprinkler is valve-in-head with its own decoder which makes each sprinkler its own station. They are positioned in a triangular formation with 18m head to head coverage.

The irrigation system is separated into two areas – the outfield and wicket table. The outfield has a fertigation inlet connected while the wicket table is on a clean separate water supply. This is because there are certain fertilisers and soil amendments that can contaminate the soil and destroy the wicket soil structure.



## LOOKING FORWARD

The oval now has the capability to host sports other than just AFL and cricket with the installation of new goal post footings for rugby, rugby league and soccer. New AFL standard hinged posts have been installed with an extra offset post to reduce wear. A new AFL standard hinged safety netting system has also been installed behind the goals.

Around the boundary two areas of AFL standard synthetic turf have been placed in the high wear areas, namely in front of the players race and tractor shoot. New AFL standard dugouts have also been constructed as well as a new 900mm high picket fence, with the two extra rows of seats.

The oval was handed over to me just over two weeks before the PM's XI match and the quality of the construction and turf supplied gave me

**A total of 200mm of Oberon wicket soil was placed in four 50mm layers with each layer compacted and laser levelled. Oberon is a swelling clay that exhibits a significant cracking pattern**

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The herringbone drainage system was installed with 100mm ag pipe at 6m centres

confidence that the surface would be presented to an international standard.

Prior to the PM's XI match, the wicket square was lightly renovated three times and after the final time was laser toppedressed to ensure all the finish levels were maintained. The outfield was also toppedressed twice with the same sand used for the construction, the first being 60m<sup>3</sup> and the second 40m<sup>3</sup>.

Although only a few months old the ground is performing very well to date, but it will take a good year for me to work out all the capabilities/limitations of the irrigation and drainage systems. The main challenges I will face with the coming months will be controlling thatch levels and working out a fertilising regime to maintain adequate plant and soil health, especially as the turf and profile matures.

The Grand Prix will be oversewn with Heritage Seeds' Striker Gold mix which is a three-way blend of continental ryegrasses (Premier II, Derby Xtreme and Tophat II). Two applications will be made at 250kg/ha, the first just before the grade cricket grand final in the last week of March and second just after the ground's first AFL match on 12 April between GWS Giants and Western Bulldogs.

We will carry out our normal renovations to prepare the surface for seeding which includes scarifying in two directions and Phantom coring the ground in a minimum of two directions before dimple seeding. The second application will include just a Phantom core beforehand. The ryegrass will be chemically transitioned around the end of November/early December depending on event scheduling at the time. 🙌

Once the sand was levelled, Evergreen's StaLok fibres were incorporated into the top 100mm of the profile



The new seven deck wicket table was turfed with maxi rolls of washed Legend couchgrass



A 20m wide square of Grand Prix was turfed around the wicket block two weeks ahead of the outfield



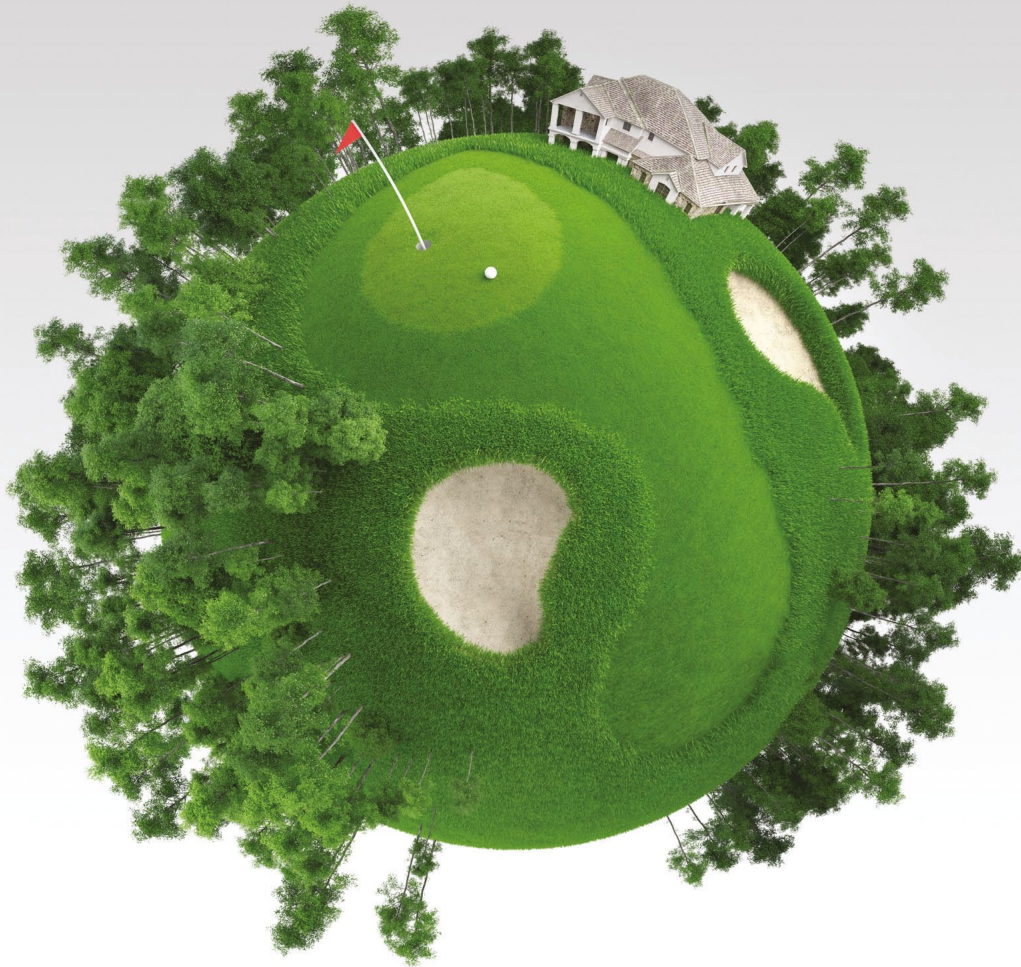
4500m<sup>3</sup> of sand was brought in with the top 140mm amended with 5 per cent cocoa fibre



Grand Prix was chosen because of its wear tolerance, shorter dormancy period and dense upright growth



Game on - the strip used for the PM's XI match in mid-January. England batted first scoring 270



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Doha Golf Club is the only golf complex in the Arab emirate of Qatar. Since 1998 it has hosted the European Tour's Qatar Masters

When David Cassidy left Sydney in 2005 for the Middle East, little did he know that nine years on he would still be there plying his trade as a golf course superintendent in one of the most challenging turf environments imaginable. Heading the maintenance team at Doha Golf Club in Qatar for the past six years, Cassidy gives ATM an insight into managing this desert oasis.



## Middle East master

**T**he alarm goes off, early. I get up and stumble into the shower which is turned down as cold as it can go, yet somehow it feels like the hot tap is on full. I slip on the work boots, open the front door and walk out into the 40 degree heat. It's 5am. Welcome to the Middle East, welcome to Doha.

My name is David Cassidy, a 34-year-old Australian who is currently the golf course superintendent at Doha Golf Club (DGC) in Qatar. Home to just over two million people, Qatar resides on a peninsula off of Saudi Arabia, some 400 kilometres west of Dubai. As well as having massive natural gas and oil reserves, the country most notably made headlines back in December 2010 when it secured the hosting rights for the 2022 FIFA World Cup, the first Arab country in the history of the event to be bestowed the honour.

DGC is a unique 27-hole golf complex which comprises the 7395 yard Championship course and the nine-hole 2808 yard, par 34 floodlit Academy course. Designed by golf course architect Peter Harradine and opened in 1997, the facility resides on 150 hectares of rocky desert which makes for some interesting features, especially where the desert winds have carved their mark throughout the routing.

I came to Qatar in June 2005 (summer time) from Sydney where I had been working at Terrey Hills Golf and Country Club for just under a year following stints overseas at Gleneagles (Scotland) and Sandy Lane (Barbados). I went to Doha to take

on a role as sports field manager, a job that was administered through the golf club and reporting to then course superintendent and fellow Australian Ranald McNeill.

Qataris are fanatical about their football (soccer) and at the time DGC had the contract to maintain soccer pitches at eight local clubs for the Qatar Football Association, as well as construct any other pitches that were required. At that time the country was also gearing up to host the 2006 Asian Games.

Despite having always worked on golf courses, the prospect of working in a different area of the turf industry and in a country far removed from home was just the challenge I was looking for, not to mention being involved with a major sporting event like the Asian Games. I initially thought I'd give myself two years to gain some experience, save some cash and then look for the next opportunity that came along. What's that saying about best laid plans...?

In early 2007 Ranald's assistant at DGC left and I quickly jumped at the opportunity to take on the role. It was great to learn off Ranald while working on the sports fields but more so on the golf course as he had such a laid back approach, especially when dealing with the unique cultural aspects of the job, the crew and especially the region's often unreliable suppliers.

No more than a year after joining the golf crew, however, Ranald decided to pull stumps and head back home to Australia after 14 years at DGC. I must say I didn't initially jump at the prospect of stepping into his shoes as it was a huge step up, but after thinking about it I grew a set, grabbed the bull by the horns and have never looked back.

### NOW THIS IS SUMMER!

To put it bluntly, summers in Qatar are tough.

Everybody has felt hot temperatures in Australia, but it's when you come to the realisation that the temperature isn't going to cool off for months on end that you have no choice but to adapt.

There are two parts to summer here. The first is the dry part which normally starts in May and continues until mid-July. And when I mean summer, I mean temperatures over 40°C every day. During this period we get constant wind gusts of between 15-25 miles per hour, so it's like being sandblasted with a hair dryer.

While evapotranspiration rates average over 9mm per day, managing the course in these conditions isn't that bad. You can obviously lose a bit in colour, the roughs start to thin out and the desert starts to engulf the rough, but it is manageable once you get used to it.

The next part of summer, from mid-July through to the end of September, is when the humidity kicks in. Temperatures range from overnight lows in the early 30s to 40-plus maximums during the day, but the humidity is constant thanks to the winds having died off and become non-existent.

ET rates average about 6.5mm per day which, again, is manageable, however, we have to pay particular attention to the 328 couchgrass greens as the humidity, combined with the heat, results in an explosion of growth with the leaf becoming really juicy. I tend to put out turf growth regulators every three days and verti-mow once to twice a week to keep the greens in check.

During this time of the year the crew, which numbers 60 and comprises of Indian, Sri Lankan, Filipino and Nepalese nationals, will start at 4am and finish by 12.30pm. Understandably, we also try and get any labour-intensive jobs out of the way first thing as well.

With no rainfall from April to October, up to 8000 cubic metres of water (8 megalitres) is pumped out on the course a day during the peak of summer. Our water is currently potable town supply from



desalinated sea water, however, we are in the process of installing a connection pipe for treated sewage effluent. In the past, our water supply has been shut off in the peak of summer, which resulted in us having to hand-water greens only with our stored water supply.

While the heat has its drawbacks, it does have a few advantages. Take renovations for instance. I will aerate the course and thanks to the heat the playing surfaces will be completely recovered in a week's time. The same applies with verti-mowing; I will do a heavy verti-cut on the 419 bermudagrass fairways and they will have recovered by the end of the following week.

## SOWING THE SEEDS

The highlight of the golfing calendar at DGC is without doubt the European Tour's Commercial Bank Qatar Masters which has been held on the Championship course since 1998. Adam Scott has twice been a winner at Doha, including his 2008 victory where he fired a final round 61. Others to have their name etched on the striking Mother of Pearl trophy include another two-time winner Paul Lawrie, Ernie Els, Thomas Bjorn, Henrik Stenson and Retief Goosen.

**The rocky desert landscape on which DGC resides makes for some unique features throughout the routing like this on the 12th hole**



**During summer overnight temperatures will be in the mid-30s with day-time temperatures well into the 40s**



Prior to the overseeding of the course in early November, all fairways, tees, approaches and greens are verti-cut and rough scalped down

Being held in January, preparation for the Masters begins with the overseeding of the entire course the previous November. As with anything to do with greenkeeping, it is all about timing and in the case of overseeding we do it to coincide with a drop in temperature. At this time of year, the temperatures are starting to wind down from 40°C in early October to mid-30s. It might not seem much but everybody starts to get a spring in their step.

I normally overseed early November which gives me enough time for the seed to mature before the tournament which is usually around the third week of January. The overseeding programme goes as follows:

- A turf growth regulator is applied to all turf areas to be overseeded;
- Following week all fairways, tees, approaches and greens verti-cut and rough scalped down;
- Week after verti-cut, ryegrass seeded on all tees, fairways and rough at about 450kg/ha with tractor mounted drop spreaders in a right-left, left-right direction so as to eliminate any misses. Pedestrian drop spreaders are used for tight areas and around edges of the greens, lakes, bunkers and paths;
- Greens and approaches overseeded with *Poa trivialis* at 5kg/100m<sup>2</sup> with pedestrian drop



A mainline blowout on the 12th four weeks out from this year's Masters

spreaders, again in two directions followed by a heavy topdressing;

- Once all seed is down we will irrigate continuously every hour for about a week, then drop back to every two hours for another 4-5 days;
- Seed germinates in about three days with tillering at 10 days.

We are lucky to have the Championship course closed during the seeding period which takes about three days to complete, however, we only get a further three days of closure when the irrigation is running to germinate the seed. When play resumes that is where we have the challenge of irrigating between golfers, which is always a fun time!

The overseeding period is a lot more intensive than the actual tournament. Whereas the tournament itself is all about routine, with the overseeding you have a very small window to operate within and you are dealing with nature and hoping that staff follow your instructions. At the end of the day, however, the overseeding lifts the course to another level and it really signals the start of the countdown to the Masters.

## TOURNAMENT FOCUS

In the weeks leading up to the tournament I have weekly goals of what we will be doing and where we need to be. As always a few spanners get thrown into the works to make things interesting, such as a truck driving across one of the greens or a mainline break (see photo left).

Ten days before the first Masters practice round, the Championship course plays host to the Qatar Open. While the timing isn't ideal, it is a good event to help the staff prepare and get used to the work programmes that will be employed for the Masters. Pin placements and tee positions can become a hassle as you like to protect these areas as much as possible ahead of the Masters, but generally the Open field isn't large which means the wear and tear on the course is minimal.



Staff marking during the overseeding. Fairways, tees and rough are oversown with ryegrass, while the greens and approaches are oversown with *Poa trivialis*



Overseeding lifts the course to another level and signals the start of the countdown to the Masters

Once the Qatar Open is finished the course is closed. This is when we undertake a lot of detail work, such as raking and compacting tree mounds and bunker presentation. The desert areas are also detailed which involves removing sand from rock faces which has built up from dust storms and grass removal which has crept in over time.

On course the frequency of cut intensifies and all the landscape work around the clubhouse steps up a notch. We have a lot of experienced guys on the crew with some having been at DGC since the first tournament back in 1998. All the staff have a programme to follow to take out any of the thought process and eliminate possible confusion and misinterpretation, because every now and then you forget that the guys have absolutely no experience.

The following was a classic example. I was discussing a project with the landscape supervisor who had parked his buggy on the cart path. Another member of staff had come up behind the buggy and wanted to get past. The conversation went something like this...

“Sreedharan, get Patel to move your buggy so Marimuthu can get past”. “No sir, he doesn’t know how to drive”. “What do you mean he doesn’t know how to drive? It’s only got a stop and go pedal, of course he can drive!” “I don’t think he can do it sir. I will do it myself.” “No but Sreedharan, I know he can do it.” “Okay sir.”

Poor Patel gets into the cart, plants his foot down, doesn’t turn the steering wheel and proceeds to drive up through two garden beds before sailing over a one metre high rock edge. While trying to keep a straight face I say to Sreedharan, “I think you’re right Sreedharan, he doesn’t know how to drive.”

## GAME ON

Before tournament week I will check the speed of all 18 greens and practice greens daily to make sure they are running at the same speed. During the tournament I will check green speed after they are

double cut and carry out anything else necessary to achieve our target speed, whether that’s giving the greens another cut or a roll, a double roll or just leaving them. I will always check the speed after any extra work to make sure we are within the limits set by the European Tour.

Due to the tournament being in January, which is winter in Qatar, daylight hours are a lot shorter – just under 11 hours. The first tee time is 6.30am off the 1st and 10th tees with first light just before 6am. That means most of our preparations are carried out in the dark and to assist with this we bring in a couple of transport floodlights that can be moved around as required. We are also lucky enough to have lights on the marquees surrounding the 9th and 18th greens. All the practice facilities have permanent floodlighting, as well as the Academy Course which is adjacent to the 1st and 2nd on the Championship course which we can switch on.

The afternoon regime is much the same and the crew will stay back behind the last group and cut the whole course. I will again check green speeds to determine what we’ll do to the greens that afternoon and having in mind what I want to achieve the next morning.

With the course closed in the lead up to the Masters a lot of detailing work can be carried out





Raking the rough in front of the impressive spectator stands on 18

As with most tournaments, the staff will work 12 hour days and in the weeks leading up to and during the tournament my Kiwi assistant Corey Finn, English equipment manager Steve Shaw and I pretty much live at the club.

For the 2014 Qatar Masters our cutting regimes were as follows:

- Tournament height of cut was 2.75mm. Greens were double cut with 12 walk-behind greens mowers every morning and every evening with green speeds between 11'6" and 12" for the week.
- Fairways cut at 10mm, semi-rough 25mm, intermediate rough 50mm, rough topped at 75mm before practice round. Tees and approaches were hand cut.

The Qatar Masters always attracts a strong field of players, but, bizarrely, the spectator galleries are quite small which means you have plenty of opportunity to be close to the action as well as speak to the players during the practice rounds. In saying that though the 9th and 18th holes (both par fives) are always a hive of activity with the hospitality suites surrounding the 18th green providing a real amphitheatre feel.



David Cassidy (left) and Corey Finn (right) with 2014 Qatar Masters winner Sergio Garcia

Turf in high definition!



In what proved to be a dramatic finish this year, Sergio Garcia shot a superb final round 65 but had to watch as Finland's Mikko Ilonen holed a 20-foot birdie putt on the 72nd hole to send the tournament to a playoff. Finishing square after the first two holes, the Spaniard nailed a birdie on the third playoff hole to collect his first European Tour win since the 2011 Andalucia Masters.

There is no better way to motivate yourself and your team than getting the course up for a major televised tournament. All the hard work that goes into the lead-up to the tournament is justified and there is always a tremendous sense of satisfaction among the crew and pride in what they have achieved with their course.

### ONE OF A KIND EXPERIENCE

The toughest challenge about being in Qatar would be the isolation with the job. DGC is currently the only golf course in Qatar so it's not like you can drive down the road to a neighbouring course or have one of your peers drop in to give you a second opinion or loan some equipment.

With suppliers having little in the way of available product or the quantities we require, we have to order our fertilisers and chemicals every six months through a tender process. Not all chemicals and brands are available and if I wish to trial a product I am expected to purchase the product which can take nine months to arrive. The added challenge is that when it arrives, it is likely to be labelled in Arabic, German or Dutch! It's the same with irrigation and machinery parts. The local distributors carry little to nothing in stock, so we end up having a large amount in stock as you cannot afford to rely on them.

Despite some ups and downs and the unique challenges a place like Qatar can throw at you, the experience I have had over here has been life-changing. Coming to Qatar was one of the best decisions I have made and it has given me a great opportunity to ply my trade in some of the most extreme conditions imaginable.

Outside of turf management I have developed a better understanding of cultures that I would never have had the chance to meet if I was still in Australia and I have met so many wonderful people from all walks of life. My patience has been tested countless times, mainly from misinterpretation, but at the end of the day you always sit back and have a laugh. 🌱



Doha's 3rd hole ready for the Masters



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The adage of never being too old to learn is never more applicable than to the art of greenkeeping – just ask Victoria Golf Club course superintendent Ian Todd. ATM editor Brett Robinson looks back at some testing times in the lead up to February's 2014 ISPS Handa Women's Australian Open, as well as the challenges of a different nature for Todd's counterpart Steve Hewitt as 13th Beach played host to the Oates Victorian Open a week later.

# Tournament test

If Ian Todd did have hair, then chances are in the eight weeks leading up to the 2014 ISPS Handa Women's Australian Open he would've pulled it all out. In the 18 years he has resided as course superintendent of Victoria Golf Club on Melbourne's sandbelt, he has been confronted with numerous challenges, enough to keep a pack of darts close at hand and a few emergency stubbies on ice, for medicinal purposes of course.

If there is one thing a seasoned superintendent can attest to it's that you never stop learning the art of greenkeeping. Just when you think you have got on top of things and all your years of experience have gelled and the course is travelling nicely, something invariably comes out of left field that turns everything on its head and leaves you second guessing your ability.

So was the case for Todd last December just a few months out from Victoria's first Australian Women's Open since hosting two of the first three back in the 1970s. Ultimately he and the crew presented the course as promised, with Karrie Webb coming from five shots adrift at the start of the final round to record a remarkable fifth Open victory. But it was a close run thing, a bit too close for Todd's liking, and proved to be a tournament lead up he won't forget in a hurry.

## NERVOUS TIMES

Up until mid-December, things had been going by the book for Todd. With Victoria's club championships in October successfully out of the way, Todd decided to give the *Poa annua* populations in his old bent/*Poa* greens a bit of a touch up. Going out with label rates of endothal to suppress the ubiquitous weed, the applications had their desired effect and



Victoria course superintendent Ian Todd stimping the 16th green prior to the second round



although the greens were a little bumpy throughout November, Todd was happy with the results. Then came December – wet, humid – and the stars aligned. You can guess the rest.

Returning to work after one weekend in mid-December, an anthracnose outbreak had seized a hold on eight of his greens, with the 10th, 11th and 14th the worst affected. Surprised to see the disease flare up so early in the season, Todd went out with a fungicide to knock the anthracnose on its head. Wet weather washed that initial application away so a second went out.

A week later and with no sign of the disease abating, Todd, a little nervous by now, went out a third time. After a restless Christmas, Todd was still not convinced he had it under control and with the clock ticking and Open looming large, went out a fourth time on 29 December.

In between all of this Todd was going out with regular fertiliser applications in order to get the bentgrass to cover over the infected *Poa annua*. A couple of times he was going out with a fungicide in the morning and following that up in the afternoon with a fertiliser application, something he has never had cause to do before.

The 2014 ISPS Handa Women's Australian Open was the first major event Victoria Golf Club has hosted since the back-to-back Australian Masters in 2010 and 2011. Pictured is the 6th



PHOTOS: BRETT ROBINSON

Three light topdressings followed to give the bentgrass something to grow into, the last coming three weeks before the tournament, with the greens continuously being pumped full of water, root stimulants and foliar fertilisers to encourage as much growth as possible. Not exactly your typical lead-in prep for a major tournament.

"In my 18-and-a-half-years here I have never had an outbreak of anthracnose like that," reflects Todd. "December was horrid, the worst we have had for a long time. We had 80mm of rain, which was about 30mm above our normal average, but it was the humidity as well.

"The endothal had suppressed the *Poa* nicely, but because of the weakened state of the plant and with the weather conditions we experienced, the anthracnose just took a hold over that one weekend, as disease always seems to do. I didn't think it would turn as ugly as it did only because we have never had anthracnose that early in the season before. I just wasn't expecting it.

"That's the juggling act you play when you have bent/*Poa* greens and you are always living on the hope that you don't get an attack of disease, but the reality is you are always going to get something.

"The one thing about this game is that you never stop learning. It doesn't matter how good you are, things can come up and bite you quickly. In saying that though, the club was very supportive through all of this and we made sure we kept Trevor Herden and Golf Australia informed of what was going on and the work we were doing to get the surfaces back up."

**Stuart Patterson (front) and Anthony Hammel cut Victoria's 13th fairway** ▶





◀ Owen Blacker handwaters Victoria's 4th green ahead of the second round of the 2014 ISPS Handa Women's Australian Open

### GROW YOU GOOD THING!

With the anthracnose finally under control by the second week of January, Mother Nature then decided to turn up the thermostat. Melbourne sweltered through five consecutive days of 40-plus degrees in mid-January, but while uncomfortable for most the heat proved a godsend for Todd. Being able to pump the greens full of water, combined with the heat, meant some excellent and much welcome bentgrass growth. With about two weeks left before tournament week the water was backed off and the focus turned to firming the greens up and getting smoothness and consistency back into the putting surface.

One drawback of having to promote as much growth as possible was the thick nature of the new bentgrass leaf, so the grooming heads on the walk-behinds got a good workout to fine out the canopy. Then it was all about cutting – single, double, triple sometimes – to get the surfaces tournament-ready.

"We only just got there," remarks Todd. "There were certainly some very stressful moments around Christmas and through January and at times it was like living a nightmare. We were starting to get somewhere, but the concern was whether the recovery was going to be quick enough because I know how slow these older bentgrasses can take to grow over.

Starting in late March, Victoria's 14th green will be lifted and recontoured to enable more pin positions



"The crew put in some remarkable work and long hours to get the surfaces back up in that three-week period and in the case of the 10th green it wasn't until about two weeks before the tournament that we had a surface to work with.

"Tournaments are all about the greens and while there was a little bit of scarring there was nothing that affected ball roll and they presented at a speed that we and Golf Australia were happy with. I guess the one good thing to come out of all of this – there had to be something – is that the bent/Poa population in the greens is now about 80/20!"

For all the stresses leading up to the tournament, the four championship rounds passed by without fuss. Benign conditions for the first three days meant the course was easy pickings and it wasn't until a southwesterly wind got up for the final round that the field was put to the test. With the early front runners stumbling, the experienced Webb sailed home with a final round 4-under 68 to pip third round leader Chella Choi, who missed a birdie putt on the 72nd hole to send the tournament into a playoff.

Victoria's greens were cut at 2.25mm for the tournament, 0.25mm lower than their usual club heights, and were given just a single cut in the morning and afternoon. With the small size of some greens and nature of their undulations, the rollers stayed in the shed with the greens stimping 10'6".

While the greens had given Todd plenty of grief in the lead-up, the tees, fairways and cool-season surrounds all (thankfully) behaved. The December rain meant the fairways held their moisture nicely and come the heat in January looked after themselves. Despite needing some water through those dry weeks leading up, the fairways had a lovely linky appearance come the tournament.

As with past tournaments, Todd's crew was bolstered by 10 volunteers who came from Lake Karrinyup (WA), Metropolitan, Kingston Heath, Woodlands, Patterson River, Rosanna and Yarra Bend golf clubs.

With the tournament over, the next major focus for Todd will be the reconstruction of the 14th green starting late March. The green will be lifted and slightly recontoured to allow for more pin positions on the front of the green, with the right hand bunker also being tweaked. The back section of the green will be flattened out and the false front reduced slightly. The tees on 12 and 15, which tie into the surrounds of the 14th green, will also be re-jigged.



Victoria's vegetation guru Russell Blackmore tidies up the carry on the 18th



## NUMBERS GAME

The challenges were more of a logistical nature for Todd's counterpart and current VGCSA president Steve Hewitt at 13th Beach on Victoria's Bellarine Peninsula. For the second year running the 36-hole complex, which comprises the Tony Cashmore-designed Beach course and Sir Nick Faldo-designed Creek course, hosted the Oates Victorian Open men's and women's championships concurrently across both courses, along with two 36-hole Pro-Ams and the 2014 Junior Victorian Open.

Since 2012 Golf Victoria has staged the men's and women's Opens simultaneously, the first year at two separate courses – Spring Valley and Woodlands. However, in late 2012 it was announced that 13th Beach would be the tournament's new home and after successfully hosting the 2013 event it returned there from 20-23 February 2014.

The 2013 event saw the men play all four rounds on the Beach course with the women playing the Creek course for the opening two rounds before finishing on the Beach course. This year the format changed. Both the men's and women's fields alternated between the Beach and Creek courses for the opening two rounds, with the weekend rounds played on the Beach course.

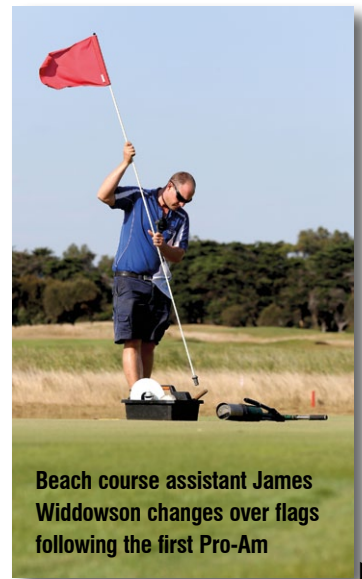
The Beach course routing also altered for the tournament with the back nine becoming the front nine, holes 5-9 becoming 10-14 and 1-4 becoming 15-18 in order to finish in front of the clubhouse.

The logistics of hosting two tournaments are considerable from many angles, but were more so for Hewitt and his crew. After having more than 400 members and public players packing out both courses the Saturday before tournament week, preparations began in earnest on the Sunday with the Beach course hosting the first event of the week, the 2014 Junior Victorian Open.

Monday's practice round enabled Hewitt to fully cut the primary surfaces on both courses and also start on the bunkers ahead of the Pro-Ams. This year saw the addition of a second Pro-Am on the Tuesday which meant back-to-back 4.30am midweek starts for the crew in order to have the courses ready for the 7.45am, 36-hole shotgun starts.

Normally numbering 15, the 13th Beach crew was bolstered by four casuals for the tournament week – Paul Loche (Freeway GC), Mark Wilkinson (Anglesea GC), Graham Shearer (ex-Loch Lomond, Scotland) and Matt McLeod (Tocumwal GC). On the Thursday and Friday of the tournament – the busiest days with two course, two tee starts at 7.30am –

For the second year running, 13th Beach hosted the Oates Victorian Open men's and women's championships concurrently. Pictured is the 16th (Beach course)



Beach course assistant James Widdowson changes over flags following the first Pro-Am

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Foreman Scott Thomson cuts the perimeter on the 16th green (Beach)



Tocumwal superintendent Matt McLeod journeyed down to assist with preparations for a second year



Matthew Barras lines up the tee markers on the 12th hole (Beach course) before cutting the approach



a further 10 volunteers from local clubs Barwon Heads, Anglesea, Ocean Grove, Curlewis and The Sands, Torquay came in to assist.

Volunteer member Phil Draper helped out with the maintenance of the sandy wasteland areas before cooking breakfast for the crew each morning, while turf technician Brad Burgess had his counterpart at The Sands, Nathan Stapleton, assisting him with machinery maintenance (every machine was backlapped after use).

The Penn G2 greens on both courses were single cut at 3.2mm with triplex mowers each morning, as were the collars and tournament tee tops (7mm). The fairways – Santa Ana on the Creek course and fine fescue/couch on the Beach course – were trimmed at 10mm in the afternoons. Hewitt used Primo on the Creek course fairways to limit their growth which enabled him to cut half of them one day and the other half the next, as time constraints meant he couldn't cut all fairways on both courses each night. Non-tournament tees and greens surrounds were also cut in the evenings. Due to the alternating fields for the opening two rounds, holes weren't changed on the Friday morning.

The tournament caught a major break before it started when a 'super cell' storm smashed Geelong 20km north west of the course late on Wednesday. Around 50mm of rain fell in 20 minutes causing flash flooding and delaying the NAB Challenge match between St Kilda and the Western Bulldogs after Simonds Stadium became inundated. Fortunately for Hewitt, 13th Beach recorded just 6.5mm.

"We were very happy with the way the courses came up," says Hewitt. "The PGA and Golf Victoria were very pleased and there was a really good feel about the tournament. Golf Victoria is on to a winner having both events played at the same time and we had about 7000 spectators in here on the Sunday.

"I couldn't have been happier with the greens, especially the ball roll which was much better than last year. We dusted the greens four weeks and two weeks out and in the week prior we increased the frequency of cut. We normally cut greens every second day, but we started cutting every morning with the triplexes (brushes down for four cuts) and then rolled them the Thursday and Friday the week before. In the end we needed to put more water on the greens to slow them down a little. With a single cut they were between 10'6"-11' and despite the additional watering they held their firmness well.

"We had to change our schedule around because of the extra Pro-Am this year, which meant a lot more preparation work on the Sunday beforehand. The staff did an amazing job to get the courses up and really pushed themselves to the limit. The four casuals we had were fantastic and it was great having Matt (McLeod) come back for a second year. The volunteers also fitted in really well and were a huge help."

Despite some trying conditions on Thursday, the weekend saw a grandstand finish. Victorian Matthew Griffin claimed the men's title on the third playoff hole, while amateur sensation Minjee Lee shot a final round 6-under to win the women's by six shots.

And speaking of final round performances, the Open concluded on a high note for one key member of Hewitt's staff. Creek course assistant superintendent Roger Harkin had more than the tournament on his mind during the week with his partner Elma due to give birth to their first child on the Sunday of the Open.

As a result of the impending arrival, Hewitt had to put in place a few contingencies just in case Harkin needed to rush off. However, he need not have worried as Elma timed things to perfection, going into labour on Sunday afternoon and delivering a healthy baby girl Sienna Addison (7lbs 7oz) in the early hours of Monday morning. 🙌



The fescue/couch fairways of the Beach course (pictured is Mark Wilkinson cutting the 11th) and Santa Ana fairways on the Creek course were immaculate

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Course Superintendent  
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Corowa Golf Club, 12th Hole

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Better known as being the Tasmanian base for defending AFL premiers Hawthorn, the past summer saw Launceston's Aurora Stadium install a drop-in cricket wicket. Pitchcraft's Port-a-Pitch system was used



# Aurora drops in

Having been the home of AFL football in Tasmania since 2001, Launceston's Aurora Stadium recently became the state's first venue to install a drop-in cricket pitch. ATM looks back at the construction and performance of Aurora's wicket during its first season which saw it host the Aussie 15s series as well as the Ricky Ponting Tribute Match.

Over the past 18 months Victorian-based company Pitchcraft has worked with Launceston City Council (LCC) on the development of cricket at Aurora Stadium. This has seen the tailoring of its Port-a-Pitch system to host cricket for the first time in the main arena. Starting construction last April, the past summer has seen the Legend couchgrass wicket host the four-week Aussie 15s series as well as the Ricky Ponting Tribute Match on 30 January which attracted a near capacity crowd of over 17,700.

Since 2001, Aurora Stadium, which is owned and operated by LCC and managed by popular former Footscray footballer Robert Groenewegen, has been the state's 'home' to AFL football. In addition to the Hawthorn Football Club establishing a base at the ground and now playing a total of five games there each season (four premiership games and one pre-season match), Aurora is also home ground for two Tasmanian state league teams – North Launceston Bombers and a new team called Western Storm. Cricket at the facility has solely been played on the ryegrass deck of Invermay Park, Ponting's home ground which is located directly behind the main arena.

With little in the way of activity on the main arena over the summer months (in the past it has hosted A-League games but recently lost those),

Groenewegen together with head curator Bryan Dunn began research into the prospect of installing a drop-in cricket wicket. The aim was to give the venue more 'product' and provide a potential second major cricketing venue in the state that could attract state age group matches, women's interstate games and even a women's Test match.

Following trips to see drop-in wickets at both Etihad Stadium (Melbourne) and Simonds Stadium (Geelong), the LCC approved funding for one to be constructed at Aurora. Richard Winter and his team at Pitchcraft were contracted to construct the wicket and also provide the necessary training and support during the installation, maintenance and preparation of the wicket once in the ground.

## GOING DOWN

The project to build the drop-in wicket was undertaken in stages with the fabrication of the pitch frame coinciding with the construction of the nursery just outside the venue in the third week of February 2013. Once the frame was situated in the nursery, the infill of wicket soil and washed Legend couch was carried out.

A Mangalore clay sourced just north of Hobart was used (the same as that used at Bellerive) which had the following analysis:

- **Organics:** 3.2%





WORDS AND PHOTOS: RICHARD WINTER AND BRETT ROBINSON

15s series. The brainchild of former Tasmanian coach Tim Coyle together with the assistance of Groenewegen, the Aussie 15's were held over four consecutive Wednesdays with two games played each night under lights.

The series featured a number of innovative rules, among them that each team had 15 players, an innings comprised of 15 overs and batsmen were forced to retire after facing just 15 deliveries. Bowlers were only allowed a maximum 10 metre run-up, double runs were on offer if the ball was hit in designated zones, while double plays were also allowed (if a batsmen got caught out the non-striker could also be run out).

The opening night saw hometown hero Ricky Ponting don the pads for the Star Bar Slashers side (aligned with his local Mowbray club), while the series also featured Tasmanian Tiger and Hobart Hurricane left-handed slugger Aiden Blizzard. The bulk of the teams comprised the cream of cricketers from around the Launceston district with a few interstate ring-ins.

### ROLLING, ROLLING, ROLLING

Despite having plenty of experience on ryegrass wickets (Aurora's crew of four also maintain Invermay Park), for assistant curator John Kedey the arrival of a couchgrass wicket provided a steep and very interesting learning curve. A handy district cricketer in his own right who has grown up preparing ryegrass wickets his entire career, Kedey took a leading role in maintaining and preparing the new drop-in.

After lightly scarifying the wicket in two directions and topdressing it prior to being installed, the six weeks leading up to the Aussie 15s were all about consolidating the wicket and promoting as much growth of the Legend as possible, not an easy task given mean monthly temperatures for Launceston in October and November were just 17.5°C and 19.6°C respectively (Source: BOM).

- **Clay (<0.002mm):** 54.4%
- **Linear shrinkage ratio:** 0.05
- **Cracking pattern (number of fragments):** 5
- **pH (water):** 8.0
- **TSS:** 1247ppm

The subsequent grow-in and maintenance was carried out by Dunn and his team with the wicket then nursed through the winter months.

In early October 2013 the construction of the base in the centre of the main arena took place with care not to damage the outfield and recently installed sand banding trenches. The base consisted of 20 concrete piers, eight 200mm steel 'I' beams and sand and gravel to match the existing profile of the Aurora outfield.

Once the base was finished, the pitch was installed in two halves utilising a 100 tonne crane and two flat deck semi-trailers. The process from start to finish took just under four hours with some minor turfing around the pitch required afterwards.

Over the period of the project, Dunn and his team grew a nursery of Pitchcraft's Transformer stabilised replacement turf. This was harvested on-site and installed around the pitch to ensure a stable surface was achieved immediately without the need to rely on turf establishment before play.

The drop-in wicket had its first match on 27 November as part of the first week of the Aussie

**A job well done ahead of the opening night of the Aussie 15s series. From left are Richard Winter (Pitchcraft) and Aurora staff John Kedey, Nic Bauld, Grant Woolley and curator Bryan Dunn**





**Fabrication of the pitch frame started in the first week of April 2013. Mangalore clay, sourced just north of Hobart, was used as the wicket soil for the Aurora drop-in**



From one hour a day during the first week after the wicket went in, rolling (both cross and diagonal) increased as the countdown to the first match loomed, peaking at 6-7 hours per day over the final two days. Sixty kilogram weights were gradually added to the roller over that time as well and come the final week it was up around 1.5 tonnes.

Given it was his first time preparing a couchgrass wicket, Kedey paid particular attention to how much moisture went into the wicket block. The wicket was given its last major soak (16mm over a period of 1.5 hours) about 10 days out from the first match.

Five days out from the opening night, Kedey started with the clipping up and preparation of the wicket. With plenty of moisture still in the wicket, Kedey did a lot of cross rolling (2-3 hours at a time) and continued to build up the hours, weight and pace of the roller. Three days out the wicket was given another water as it was starting to dry out and crack mainly due to it not having a lot of grass (Kedey estimates grass coverage for the first game was only about 40 per cent).

There was also some cause for concern just before the final clip up when some clay started to stick to the roller. As mentioned, prior to the wicket going in it was topdressed, however, the topdressing didn't combine well with the existing wicket base. Kedey says it may have been a case that even though washed sod was used when the

wicket was initially turfed, there may have been some existing soil which inhibited the clay from binding effectively.

With hardness the key focus, the final two days saw a final clip up and then between 6-7 hours each day of rolling up and down the length of the wicket which was being cut at 3mm. One of the interesting challenges was sourcing quality couchgrass clippings at that time of year. After scouring the region, Kedey was able to just get enough (two garbage bins full or four walk-behind mower catchers) from the Northern Tasmania Cricket Association's No.2 ground which is Santa Ana.

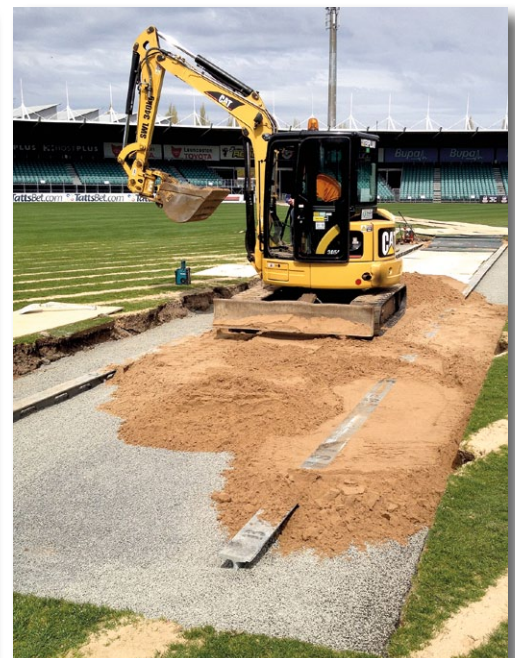
"The first wicket was probably the standout of that Aussie 15s series," reflects Kedey. "We found that the wicket got really hard. The cracking was there but they weren't folding over. Being a new wicket and being couch, we tended to lose a bit of grass from the top of the wicket and it slowed down as the weeks went on. But the firmness remained and the pitch itself played well, it was just that the height and pace dropped off a bit."

In between the four weeks, the wicket was broomed and power-vacced after each match. Due to the series being held midweek, combined with some wet weather early on, each week's preparation start times and days varied. For instance, in the second week preparations didn't start until the Monday and Kedey said it was very noticeable how much slower the wicket was and how much more moisture was in it compared to when they started preparing the wicket on a Sunday.

"With the climate in Tasmania as it is, it doesn't start to heat up until mid-December," explains Kedey. "It was interesting to get an understanding of the variance in moisture levels and how the Legend wicket could be dried out a lot more in order to get a really hard surface compared to a ryegrass wicket."

**CONTINUED ON PAGE 34**

**Construction of the base in the centre of the main arena started in late September 2013. The base consisted of 20 concrete piers, eight 200mm steel 'I' beams and sand and gravel to match the existing Aurora outfield profile**





# Rejuvenate your turf with impact this year

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**The drop-in pitch was installed in two halves utilising a 100 tonne crane and two flat deck semi-trailers. Transformer turf was then installed around the edge of the pitch**

**Aurora assistant John Kedey gives the wicket a roll ahead of the Ponting match. In the five days leading up to the match the Mentay ride-on (1.5 tonne) was used up and down for about 18 hours**



**CONTINUED FROM PAGE 32**

With the Aussie 15s finishing on 18 December, the wicket then had a four week break until preparations ramped up again for the Ponting match. Rather than scarify the wicket, renovations consisted of brooming and power-vaccing the surface to remove any organic matter and clippings prior to slowly building up preparations once again. During this time a lot of Floratine products (a combination of Astro, Protesyn, Carbon K, Carbon Tiger and Renaissance) were used, while growth cloths were put back on to encourage as much Legend to come back.

With a firm base already established during the Aussie 15s, preparations for the Ponting match effectively mirrored the lead-up to the earlier series. About 10 hours of cross rolling with the pedestrian roller was carried out and in the five days leading up to the match the Mentay 2000 ride-on was used up and down for about 18 hours. After cutting heights were raised to 5mm during the break, they were brought back down to 2mm.

“Like the first one for the Aussie15s, the pitch for the Ponting match was very hard, looked good and the grass coverage was a lot better too, about 60-70 per cent,” says Kedey. “It had a lot more bounce and carry than before Christmas and it was great to see Brett Lee bowling on it to see how much pace and bounce there was in the wicket.

“Being brought up producing rye wickets, it was a great experience working with couch. We now know it works and it showed that in time the pitch will only get better. By having this couchgrass wicket we now know how much better pitches can be here in Tasmania, but of course it comes down to the time of year as we have a shorter window of opportunity to get a couch wicket up and going. That will be the challenge going forward.”

**FOOTY'S BACK**

The day after the Ponting match, Winter and his Pitchcraft team were on the ground removing the pitch and installing the Transformer block in readiness for the ground's first NAB Challenge AFL pre-season match between Hawthorn and North Melbourne on 21 February 2014. The pitch was back in its nursery before lunchtime with sand placed in the void, compacted and levelled before the Transformer turf was installed.

“It was a great experience,” sums up Dunn, who has been Aurora curator since arriving from Victoria in 2004. “The pitch came up really well and held up very well for all matches. With drop-ins there is always the perception that they don't play as well, so it was a little bit daunting as there was a bit of uncertainty around how it would perform. But the players gave it the thumbs up and we were able to produce a similar track each week. Hopefully it has shown to Cricket Tasmania that they can have confidence in us to produce a good deck.”

For Winter, the project too was rewarding and with the Aussie 15s series set to return later this year, he is looking forward to seeing how the wicket will play one season on.

“The relationship between Pitchcraft and the LCC was open, transparent and consultative to ensure the best results and good value for money were achieved,” says Winter. “The heavy hands on involvement from Bryan, John and all the LCC staff ensured they had a good understanding of the project and developed the required knowledge to handle the transition from footy ground to cricket and back again all in-house.

“It was a very fulfilling and rewarding project in many ways and the hospitality shown to us from the LCC made us feel like part of the team. The tournament and pitch was a huge success and with discussions of more cricket and another pitch in progress, we look forward to the next stage of this ongoing project.” 🙌



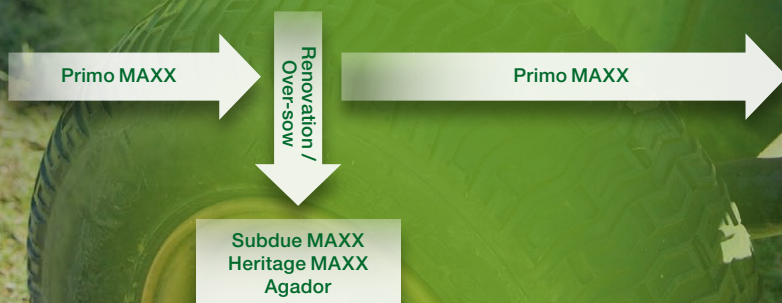
**The wicket ahead of the Ricky Ponting match**

# Solutions to ensure your turf rejuvenates with impact this year

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TM



With many turf managers having endured a long dry summer, ATM columnist John Neylan takes a timely look at the impact of salinity and sodium on turfgrass as well as the phenomenon of spring root decline.

**Above: The severe damage that high salt concentrations in soil can have on turf, in this case a golf course tee**

The summer months of 2013/14 have been extremely dry and as I put pen to paper for this edition the conditions are putting significant stress on water supplies and water quality and consequently the management of turf surfaces around the country.

The lack of summer rainfall means it is likely that there has been an increase in the concentration of salts and sodium in water supplies and soils. It is therefore a timely reminder to test the water supply and the soils to determine whether increasing salinity and sodicity is a potential problem.

### SALINITY

High-salinity water causes an increase in soil salts and as soil salinity increases it becomes more difficult for plants to extract water from the soil. This is due to an increase in the osmotic pressure of the soil water (i.e.: the salts 'hold' the water so strongly that plants cannot remove it and therefore appear to be under drought stress even when adequate moisture is present).

If you are seeing the turf wilting or foot printing, even though you have been irrigating and there is adequate soil moisture, there could be a salinity problem. Yellowing of the turf, loss of turf density, a lack of response to fertiliser and plant protection chemicals and slow growth are all signs of salinity stress. In some situations salt deposits on the surface may be visible.

The different classes for irrigation water is based on the soluble salt content and as a general rule salts exceeding 1000mg/L severely limit water use

on turf. However, this is dependent on grass species (and variety), soil type, thatch levels and irrigation management. More salt-tolerant grasses, such as couch, growing on well-drained soils that are readily leached of salts, can be irrigated with saline water with up to 2000mg/L total salts.

Where there is an increase in soil salinity the first step is to leach the salts out of the upper rootzone. Any impediments to deep drainage such as compacted soils and organic matter accumulation must be corrected if effective leaching is to occur. Where high salinity water is being used, a leaching fraction must be applied so as to minimise the accumulation of salts in the upper rootzone.

It should be noted that as the soils dry out there will be an increase in the salt concentration in the soils well beyond that of the irrigation water. Excessive and frequent applications of water are required so that leaching occurs and the soil is prevented from drying out.

### SODIUM

Where sodium forms a large proportion of the total salts in water, soil permeability problems can occur. High concentrations of sodium in irrigation water will increase the concentration of exchangeable sodium in the soil and as the exchangeable sodium content increases there is a breakdown in soil structure in soils with high clay content. This reduces permeability, aeration, infiltration and soil workability. The most commonly used method to evaluate the potential of sodium to cause soil problems is to calculate the sodium adsorption ratio.

On sandy soils, where permeability is less of a problem, the cation exchange sites become saturated with sodium at the expense of calcium and magnesium, with sodium taken up by the plant in preference to these other cations. Sodium accumulation in the plant can then reach toxic concentrations, resulting in a loss of turf vigour, poor recovery from wear, lower tolerance to heat stress, reduced tolerance to pests and diseases and potential death of sodium-sensitive plant species. Fortunately, most turfgrass species have moderate to good tolerance to sodium and while there may be a reduction in vigour, death of the plant is unlikely.

Calcium must be applied to counteract the effects of high-sodium waters, most often in the form of gypsum ( $\text{CaSO}_4$ ) or in some situations agricultural lime ( $\text{CaCO}_3$ ). Gypsum can be applied directly to the turf or through the irrigation system. In situations where the sodium content of the water is very high and there is a need to apply large amounts of gypsum, regular small applications applied through the irrigation system are more convenient and effective than large, irregular applications to the turf.

With a range of calcium-based products on the market there can often be some confusion as to what is the most effective source of calcium. The central premise is that it is a numbers game. The quantity of an amendment necessary to reclaim sodic soil depends on the total quantity of sodium that must be replaced. In very simple terms it requires a calcium ion to replace a sodium ion.

The amount of gypsum or other calcium source required can be calculated based on the milliequivalents (meq) of sodium to be replaced in the soil. Here's an example:

***A soil has a cation exchange capacity (CEC) of 17meq per 100 grams and an exchangeable sodium percentage (ESP) of 12 per cent. The desired ESP is 5 per cent or less following treatment. This equates to 7 per cent of sodium to be removed that must be replaced with calcium (Ca) to achieve the desired ESP. Therefore,  $0.07 (7\%) \times 17\text{meq CEC}/100\text{g} = 1.19 \text{ meq Na}/100\text{g soil that must be replaced.$***

***As a general rule of thumb, 3.75 tonnes of gypsum is required per meq of sodium, so  $3.75 \text{ tonnes CaSO}_4 \times 1.19\text{meq Na} = 4.1 \text{ tonnes of gypsum}/\text{ha}/30\text{cm}$ . Thus, about 4 tonnes of pure gypsum per hectare would be required to reclaim the top 30cm of this soil. This calculation has to be adjusted with lower grades of gypsum and different soil depths.***

Gypsum varies in quality and the above calculation is based on 100 per cent pure  $\text{CaSO}_4$ . It is unlikely that any natural source of gypsum will be pure and needs to be considered when calculating the quantity of gypsum. In Australia there are varying



**In extreme situations salt deposits on the turf surface may be visible**

grades of gypsum quoted - Grades 1, 2 and 3 which is 81, 67 and 54 per cent gypsum respectively. If the purity of the gypsum was 67 per cent then the amount of gypsum calculated above needs to be adjusted as follows;  $4 \text{ tonnes}/0.67 = 5.8 \text{ tonnes}/\text{ha}$ .

As is the situation with high salinity, the permeability of the soils is an important consideration if the sodium is to be displaced and leached out of the upper rootzone.

## COUCH DAMAGE IN SPRING

During the past spring and early summer there was considerable damage experienced in some couch fairways due to a combination of disease and mites. This turf damage is often dismissed as being the remnants of Spring Dead Spot or other disease pathogen and the mites are damaging the new growth as the weather warms up.



**Yellowing of the turf, loss of density, a lack of response to fertiliser and plant protection chemicals and slow growth are all signs of salinity stress**



◀ Typical symptoms of salt damage on a golf course green (top) and fairway (above)

In the past it has been observed that mite activity and the resulting retardation in growth is often associated with turf that has been weakened by various stresses such as disease, traffic etc. While 2013/2014 appears to have been a particularly bad year for mites (this is another story for a later edition) and their control was very difficult, it did make me wonder whether there was something else happening.

The incidence of disease and the reasons for it is both complex and interesting. There are a multitude of factors that can trigger a fungal pathogen to develop symptoms and to damage the host. In this situation the cause seems to relate to the previous summer.

In several situations that I have seen, the couch had been placed under severe moisture stress in the late summer of 2012/13 due to extremely dry and hot weather conditions that had prevailed. While at that time the turf did not lose density and there were no obvious symptoms of disease within the sward, the impact of this stress became apparent in the late spring/summer of 2013. Was it all about the disease pathogen or were there other physiological factors that had weakened the plant and in particular the root system?

It made me wonder whether it was in part the phenomenon described by Dr. James Beard in 1985 as Spring Root Decline (SRD). The work of Beard described the decline of root systems in the spring due to physiological factors that were unrelated to any diseases. The most significant finding from his studies was the occurrence of a severe browning of the entire root system just after spring shoot green-up.

The root decline occurred rapidly, usually within a 24 to 48 hour period. In these studies using underground observation chambers it was noted that the initiation of new roots only occurred from meristematic regions of the crown and the nodes of lateral stems. The time required for effective root replacement was approximately 20 days for the new roots to reach a 30cm depth. Thus, there was a 2-3 week period when the functional capabilities of the grass root system were severely restricted.

The spring root decline phenomenon was associated with early shoot green-up following a cold winter. The studies by Beard indicate that a canopy temperature greater than 24°C subsequent to shoot green-up is required to induce spring root decline, whereas temperatures below this range do not induce SRD. It has been postulated that the higher temperatures stimulate rapid shoot growth that draw down the carbohydrate reserves in the plant. As a result of the high carbohydrate demand in the above ground portion of the plant, a deficit in carbohydrates to support root maintenance may occur. This can create a deficiency in the roots and therefore produce spring root decline, with root regrowth not occurring until the shoot demand is satisfied.

Using the weather data for Melbourne, temperatures this past spring were a typical roller coaster. Maximum temperatures in September 2013 were above average for most of Australia and in Melbourne the average maximum for the month was 19.1°C compared to the long-term average of 16.8°C. The highest maximum temperature of 25.6°C occurred in the first week of September. There was certainly a response in the couch to these milder temperatures with leaf green-up occurring.

The significance of spring root decline may increase the susceptibility of turfs to injury from periods of low temperature stress further into the spring/early summer. In Melbourne, for example, the temperature conditions were slightly below the long-term average through October to December with periods of very low maximum temperatures. Other factors include traffic, diseases and insect pests. It has also been suggested that pesticide applications at normal rates, which result in no observable injury when applied during the growing season, have caused phytotoxicity problems if applied during the spring root decline period.

From a turf management perspective, spring root decline may be a critical factor in the timing and intensity of early season cultural practices



such as mowing, fertilisation, irrigation, dethatching and herbicide applications. For example, many couch fairways are dethatched early in the spring, herbicides are applied to control *Poa annua*, mowing intensity increases and nitrogen is often applied to stimulate growth.

Forcing shoot growth with nitrogen should be avoided as this may cause the root carbohydrate deficit to exist for an even longer time period therefore delaying root replacement. Spring irrigation should also be considered so as to in part compensate for a compromised root system.

While early season shoot growth may indicate break of dormancy, consideration has to be given to not lowering the cutting height too soon in the season. Mowing removes some of the green photosynthetic tissue of the turf and therefore reduces the amount of leaf area present to intercept sunlight and produce food for the entire plant. When there is limited carbohydrate production and reserves, the shoot will use the available carbohydrates at the expense of the root system.

Given that many couch areas are scarified/dethatched in the spring this will have a similar effect to increased cutting and lower cutting heights. Considering the impacts of mites on early season growth, preventative applications of a miticide in high traffic or disease affected areas is also strongly recommended.

Given the physiological mechanisms associated with spring root decline, it is interesting that over the past few years there has been a greater emphasis on minimising the dormancy period through the application of various fertiliser combinations such as iron, carbon and turf colourants. The work by Ford (2013) investigated various stimulants to reduce the period of dormancy and he noted that some products increased the surface temperature by 2-3°C.

Ford postulated that while this 2-3°C temperature rise doesn't seem much, it probably increases the activity of the cell membrane lipids enough to keep the cells more active and stave off dormancy. Agronomically there is still a question surrounding the merits of trying to minimise dormancy or more specifically losing green colour in the leaf tissue. In some years this may contribute to physiological imbalances and a short-term loss of root system and increased susceptibility to turf stress.

As with all turf problems, it usually relates to an imbalance in the system. In relation to couch management it is always about good turf nutrition, soil management, stress/traffic control, water management, understanding pest cycles and their control and not working the grass too hard before it is in full growth. It is also important that the couch is 'put to sleep' in good condition. In the late summer the following may help the couch get through the winter in better shape;

- Ensuring there is adequate soil moisture;
- Applying a high P and K fertiliser;



- Lifting cutting heights; and
- Incorporating some compaction relief into the maintenance programme.

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**During the past spring and early summer there was considerable damage experienced in some couch fairways due to a combination of disease and mites**

**2013/2014 appears to have been a particularly bad time for couch mites** ▶



Good root mass and turf biomass are key to reduce the impact of winter wear on sportsfields

## FORGET SUMMER... WINTER IS JUST AROUND THE CORNER!

**W**hile we are struggling to get through the ravages of a tough summer, we need to be thinking about how we are going to prepare our sportsfields for the winter months. The effects of a hot and dry summer can weaken the turf sward, even where warm-season grasses are used, resulting in a turf that is less able to survive the ravages of a wet and cold winter.

The winter months coincide with the major football codes of rugby, rugby league, soccer and Australian Rules and each of these sports impose a high level of wear and turf damage at a time when grass growth is slow. The popularity of the football codes are such that most municipal sportsfields are used most days of the week for a combination of training and matches. The work load on winter fields is usually far greater than for summer sports and consequently there is greater turf damage.

Traffic and wet soils can cause a dramatic deterioration in the quality of the turf surface. As soils become wet there is a redistribution of the silt and clay particles which clog the larger pore spaces. This, in turn, reduces the infiltration rate and aeration porosity. When the soils become saturated and muddy the turfgrasses become coated with soil and partially buried and irreparable damage to the turf can be caused in a very short time period.

How can wear and the damage it causes be managed at a time when growth is slow and soils are wet? Based on recent sportsfield audits, what follows are some of the key factors identified that minimised turf damage;

### 1. STRONG TURF

Have a strong turf sward going into winter. The strength, density and health of the turf sward will go a long way to ensuring the surface gets through the rigours of winter. On warm-season grasses, fertilise late in the summer and lift the cutting height as early as possible. The aim is to produce a dense turf with

maximum biomass. Checking there is good soil moisture is important in ensuring the warm-season grass gets maximum benefit from the fertiliser.

### 2. FERTILISING

The majority of the fertiliser should be applied in the summer when the couch/kikuyu is actively growing. The purpose is to build up a strong and healthy turf mat with the aim of this biomass providing improved wear tolerance over the winter months. A fertiliser application high in phosphorus and potassium and moderate in nitrogen in early autumn will provide improved root, stolon and rhizome strength before going into dormancy. The P and K plays a role in minimising the effects of root diseases such as Spring Dead Spot in warm-season grasses. Soil tests should be taken in late summer and the P and K levels adjusted as required.

### 3. DRAINAGE

Ensure there is good soil permeability and drainage. In the late summer and early autumn, deep aeration is essential for relieving compaction and providing for improved infiltration and drainage.

### 4. AERATION

A programme of regular aeration throughout the winter will greatly assist in minimising the rate of turf damage. When there is a dry spell of weather and machinery can be used without damaging the surface – punch some holes!

### 5. WEED MANAGEMENT

Controlling winter weeds and particularly *Poa annua* is an often poorly understood management practice. Where warm-season grasses are maintained it is important to apply a pre-emergent herbicide in the late summer and then to follow up with repeat applications.

### 6. PEST MANAGEMENT

Check for scarab larvae activity in the summer. Areas of stressed turf could be due to insects. Have a dig and get them identified.

### 7. CONTROLLING USE

This is almost the impossible dream, however, managing sportsfields requires a great deal of coordination among administrators, coaches and turf managers. The first step in controlling traffic on a sportsfield is to educate the facility users about the advantages of distributing wear rather than concentrating it – especially in late autumn and early winter when turfgrass growth is reduced. As a general rule the industry standard for hours of use for a natural turf field is between 14 and 18 hours per week, but only where the field is a well-drained sand-based construction that is well maintained and in good condition (MCC, 2010).

Traffic and wet soils can cause a dramatic deterioration in the quality of a turf surface during winter



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# Green-up at Gardiners

Course superintendent Alan Groatorex continues his look at the development of the new Gardiners Run Golf Course in Melbourne. In this edition he focuses on greens construction.

The finishing line is in sight at the new Gardiners Run Golf Course development in Melbourne's north east with a rescheduled opening date slated for early May 2014. The past summer has been eventful to say the least with the final greens being sown, a few irrigation issues for good measure (isn't it always the case during the most important time of year) not to mention the final tie-in work ahead of the members being let loose.

Over the past three editions of Australian Turfgrass Management we have taken an inside look at the various elements which go into the construction of a new golf course – irrigation system and maintenance facility as well as tee, fairway and bunker construction – and in this edition we focus on the greens.

As Beard (2002) notes in his 'Turf Management for Golf Courses' bible, putting green construction is not only one of the most costly and time-consuming aspects of a golf course development, but also one of the most critical.

Although representing less than two per cent of the total area of a golf course, putting greens play a role in some 75 per cent of all golf strokes (putting and approach shots). As such, the greens on any golf course are a focal point and get their construction wrong from the start and, well, all superintendents know the problems that can ensue in the months and years after their opening.

## METHODOLOGY

The new Gardiners Run greens total 1.2 hectares with the complexes ranging in size from 630 square metres to 790 square metres. This is almost double the size of the playing surfaces at the old Chirnside Park Country Club course.

Construction methodology employed is basically a modified USGA perched water table sand-based green. This style of construction consists of;

- A compacted clay base (no shortage of site material for this component given the new course is on an old clay mine);
- Herringbone pattern drainage pipe installed into the clay base;
- A drainage layer of gravel (7mm gravel at 100mm deep); and
- Sand layer (at a recommended depth of 300mm).

Each individual layer is a direct reflection of the finished surface contours to maintain uniformity throughout each layer. The selected sand was laboratory tested with infiltration rates in the range of 100mm-150mm per hour and a total pore space of 35-50 per cent.

The preferred content of sand particle sizes consisted of the following recommendations:

- **Gravel (2mm):** 0%
- **Very coarse sand (1mm):** <3%
- **Course sand (0.5mm):** 0-20%
- **Medium sand (0.25mm):** 60-90%
- **Fine sand (0.10mm):** 0-20%
- **Very fine sand/clay and silt:** <3%

A feature of Pacific Coast Design's specifications was the installation of a poly membrane barrier system around each green. The membrane is 1mm thick, 300mm high and is intended to inhibit fairway grass stolons and rhizomes from infiltrating the green. The barrier also assists in retaining drainage and irrigation water within the green profile and directs any excess water to drainage lines instead of seeping out into green surrounds and greenside bunkers.

Above: The new Gardiners Run greens are almost double the size of the existing Chirnside Park greens

The herringbone drainage system consists of a 150mm mainline running through the green from back to front with lateral lines four metres apart and a perimeter drain connecting into the fairway drainage system. At the other end of the mainline, which starts in the green apron area, a vertical riser with a surface grill is installed for ease of flushing and to allow for air movement through the system.

The variability of site soil made the trenching process quite difficult with a number of different machines being used for the task (remember that the new course is situated on an existing CSR clay quarry). A mini excavator with a normal trenching bucket, the same machine with a chain trenching attachment, a bobcat with a chain trenching attachment as well as a good old fashioned shovel were just some of the equipment used.

Great care was taken to protect the finished base contours with planks and boards used to straddle trenches. The removal of any debris and, if needed, an additional rolling to ensure the correct flow of water to drainage lines was also carried out.

Following a final check of base contours, the drainage pipe network and gravel layer was then installed along with the perimeter root barrier. Gravel material was trucked onto the edge of the green and dispersed with a combination of track dozers and excavators moving in straight lines forward and backwards, with no sharp turns on the green which would damage the underlying layer/drainage. With a combination of GPS equipment and a 'spotter' manually checking depths, this layer of the construction process can be completed with great accuracy.

Once a final trim with a bunker rake/drag mat was made and confirmation of finished contours, the sand profile was installed. At the same time as this was taking place the poly membrane root barrier needed to be supported by backfilling installation around the outside with the sand used to construct the surrounds of each green. Once again, the combination of GPS equipment and a 'spotter' meant that the finished contours/depth was quite accurate.

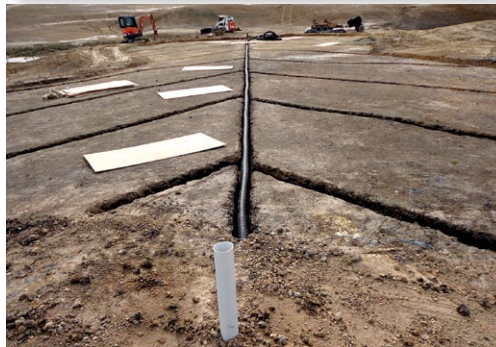
A trim with a bunker rake/drag mat at this stage gave the preliminary finish levels and the green was then allowed to have a settling period. During this time sprinkler heads were screwed onto pipework and risers that had been installed during the base construction/preparation phase. With testing of the irrigation system completed this allowed for watering in and further settling of the sand profile.

Soil amendments and fertilisers were applied and incorporated into the profile with a compact tractor and small Lely rotterra. Based on soil testing recommendations the following applications were made and tilled into the top 100mm:

- Poultry manure;
- 2.5kg/100m<sup>2</sup> NPK 18-10-18;
- Additional 2kg/100m<sup>2</sup> Superphosphate; and
- 2kg/100m<sup>2</sup> trace element mix.



Being on an old clay quarry, there was no shortage of site material to construct the compacted clay bases



The herringbone pattern drainage pipe installed into the clay base

Following a further period of watering in and settling down (approximately 10 days), a final check of finished contours was made with the necessary adjustments made with a combination of machine work and manual hand work. The poly membrane was then trimmed to just below the surface, the surrounds tied into the finished contours of the green and stabilised with solid turf around the perimeter of the green and greenside bunkers, with sprig used in the remainder of the surrounds.

## SEEDING

Due to the fluctuating water quality from the neighbouring Lilydale Sewage Treatment Plant, it was decided to use a proven performer in Penn G2 bentgrass for the new greens. The newer bentgrass varieties which have come on to the market in recent years were considered, however, with no trial work able to be undertaken it was decided to go with an industry benchmark.

The bentgrass seed was sown using a drop spreader at a rate of 10 grams per square metre. Two passes were made over each green before being tyre rolled in with a bunker rake. The tread

Installation of the gravel layer. A poly membrane barrier has been installed around the perimeter of each green



Spreading of the 300mm sand profile



Penn G2 bentgrass seed was sown at a rate of 10g/m<sup>2</sup>



After seeding, greens were tyre rolled with a bunker rake

pattern of the bunker rake tyres does two things – it presses the seed down into the small square shape of the tyres protecting it from wind erosion and also creates a small ‘well’ of water when irrigating so the seed does not float and dislodge. Admittedly, the initial germination pattern looks a bit strange with thousands of small squares clearly visible, but this soon disappears as the bentgrass spreads and the green grows out.

The front nine greens were sown last spring (2013) with the back nine completed during the early summer. The last of the greens were planted around the Christmas-New Year period. The greens received their first cut at 20mm and were gradually brought down to their current (early February 2014) height of 8mm.

CHALLENGING SEASON

With an opening date of early May 2014 now set, the finishing touches are in full swing with bunker sand installation, clubhouse landscaping and increased

mowing maintenance occurring at a rapid rate. It has been a challenging growing season this year in Melbourne with a very slow start to couch growth rates due to low ground temperature readings right up until Christmas and then a record run (five days) of extreme 40+ degree temperatures in mid-January.

Adding to the challenges has been the poor quality of the irrigation water from the treatment plant. At times pH levels have risen as high as 9.2 which necessitated high rates of calcium products being injected into the irrigation cycle. While only a short-term solution, long-term we have ordered a sulphur burner from the US which will treat the recycled water prior to it entering the storage tanks. This system can lower pH levels automatically using electronic monitoring solenoids.

Another challenge has been the delay to works on the back nine due to mining activities running overtime. That has meant the front nine has almost had almost two growing seasons to establish whereas the back nine has only had this season. Planting some of the back nine fairways in May 2013 has meant a lot of weed infestation which has slowed the couch from knitting together, but not wanting to inhibit the couch growth it was decided not to spray any herbicide and instead mow out the weeds by constantly cutting lower.

Every new golf course has its own set of challenges along the way but in a few years’ time all will be forgotten as the excitement of a new golf course grows and continues to mature. From both a playing and maintenance perspective the new Gardiners Run course will provide a superior product and we are all looking forward to entering the maintenance phase come the opening. 🌱



Greens received their first cut at 20mm before being gradually brought down



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**Alwoodley Golf Club, pictured is the 5th green, was Alister MacKenzie's first course design. Restored in the 1990s, the club prides itself on the fact that today the course remains very close to what the Doctor originally laid out**

# Best of British



AGCSA president Peter Lonergan looks back on his recent trip to attend the annual BIGGA Turf Management Exhibition in the UK and visit to Syngenta's research facility in Switzerland.

**Syngenta's impressive research and development facility in Stein, Switzerland where new compounds are put through their paces on a variety of turf species**

In mid-January, AGCSA general manager Peter Frewin and I travelled to the United Kingdom to represent the association at the International Summit of the world's golf course management associations held as part of the 2014 British and International Golf Greenkeepers Association (BIGGA) Turf Management Exhibition (BTME) in Harrogate, England.

Australia hosted the International Summit as part of the 2012 Australian Turfgrass Conference in Melbourne and we as a Board place a great deal of importance in keeping the interaction between the international bodies ongoing. The sharing of information amid the mutual problems the international bodies face will realise considerable savings going forward.

We all know how the world has changed in the past 10 years with Facebook, smart phones, tablets (the mobile computer kind, not the medicinal kind) and apps which now play a significant role in our everyday operations. Many of these new innovations are global and can be sourced from around the world and a united and broader purchasing base can realise considerable savings.

For example, if the GCSAA, BIGGA, the Canadian GCSA and ourselves all purchased an app for our conferences that was mutually suitable, our buying power across the four associations would reduce the cost significantly. The days of operating independently are gone, just as the days of phone hook ups, telephone answering machines and home phones are diminishing. The world is moving very fast and it is all too easy to not only fall behind but be left behind.

The BIGGA conference is held annually and has called Harrogate home for the past 26 years. The event operates on a 'big/small' rotation as the Australian Turfgrass Conference does and this year was the 'big' one. Harrogate is a very central location and is a short drive from Leeds Airport and easily accessible from all parts of the country by road – if it doesn't snow!

Please be assured that you don't go to Harrogate for the weather in January and I doubt I have ever been colder! But you do go for the conference and there were over 2500 greenkeepers from all over Europe in attendance for the educational component and 130 companies participating in the trade exhibition which attracted nearly 4700 visitors for the week.

## R&D INSIGHT

Before visiting the BIGGA event, Henk Smith, business unit manager, turf and landscape from AGCSA Gold Partner Syngenta, kindly organised a visit to the company's research facility in Stein, Switzerland. Stein is about an hour's drive from Basel where the company's headquarters is situated.

The airport in Basel is actually located half in France and half in Switzerland which sounded quite unique, but as soon as we jumped in a taxi to the city upon arrival our driver enquired "Sprechen sie Deutsch?" (Do you speak German) to which I bemusedly answered no. I soon discovered that Basel is actually situated on Switzerland's border







## WHAT'S IN A NAME?

Syngenta came into being in 2001 following the merger of the agribusiness arms of Novartis and AstraZeneca. The name Syngenta has two distinct roots – ‘Syn’, which stems from Greek, reflects synergy and synthesis, integration and consolidating strengths, while ‘Genta’, from the Latin ‘gens’ for people or community, relates to humanity and individuals. So, in essence, Syngenta means ‘bringing people together’.

with not only France but also Germany. And to confuse the situation further they use Swiss Francs as currency but Swiss German is the language of choice!

Not long after spending 27 hours on a plane and 12 hours in transit lounges we were met by our hosts – Syngenta global turf business manager Eric Brown and business support manager for lawn and garden Austen Sutton. This was my first visit to such a research facility and to be honest I had no idea what to expect.

I have heard the stories of how much it costs to get a new product to market and what is involved in its development, but was amazed to say the least on actually seeing it firsthand. Syngenta has over 27,000 employees around the world of which 300 are employed at Stein. The company recorded sales in excess of \$14 billion in 2012, of which lawn and garden made up about 5 per cent at \$757 million, and invested more than \$1.3 billion into research and development.

Tours of the facility are quite common and we were hosted by a range of employees during the day that showed us their chemistry laboratories where potential active ingredients are created, then on to the screening laboratories where these compounds are tested. In the 1970s 1 in 11,000 compounds would eventually find their way to the market; that figure today, remarkably, is just 1 in 139,000!

The attention to detail, the cleanliness of the facility, the friendliness and dedication of all the

staff, the complex nature and range of testing equipment were aspects that were strikingly apparent throughout the tour.

We then moved on to the network of greenhouses which literally cover hectares where a range of crops and turfgrasses are grown to be used in the initial screening processes for the compounds that make it this far. They even have their own strain of *Poa annua* as well as a range of diseases and insect pests incubated and waiting to be launched on unsuspecting plants. Needless to say the quarantine of these is absolutely paramount and is rigidly enforced.

**Peter Lonergan and Peter Frewin with Syngenta hosts Austen Sutton (left), Eric Brown (third from right), Louis Simard (second from right) and Stephanie Rieger (right)**





Even in the depths of a Scottish winter the Old Course is still an inspiring place to visit

The facility also boasts a USGA spec green where potential turf compounds have some of their first outings. It was bemusing to hear head of turf research Louis Simard say that he was hoping for some good *Poa annua* germination in the pure bentgrass sward so he could have some serious trials to control it. He also mentioned that some good disease outbreaks would be appreciated as well! Louis then proudly showed a three metre diameter pot plant with grass on it where he was able to 'harvest' 200 white curl grubs the summer before!

Following the tour we then met with Eric and Austen where we explained just what the AGCSA has planned in the near future as well as the challenges facing us looking ahead. We also gave an update on the 'state of play' in the Australian golf industry. Eric outlined Syngenta's approach to the golf market which was to help grow the game in as many ways as possible, as a buoyant golf industry obviously generates more sales.

Syngenta has a declared interest in environmental sustainability in the wider community and is convinced that golf course superintendents are already leaders in this area. Syngenta is a great supporter of superintendents around the world and keen to work with us to reinforce the positive values of golf. They detailed their appreciation for just how complex and demanding the role of the golf course superintendent can be and that they are driven to support superintendents globally whom they recognise as being 'guardians of the modern oasis'.

### A QUICK DETOUR

Highly impressed and with a new respect for the work that Syngenta is doing, we left for the much colder climes of the UK. As we had two days before our next official duties in Harrogate, we decided to take a quick detour to the Home of Golf, St Andrews. To be having breakfast in the famous clubhouse overlooking the Old Course less than 24 hours after touching down in the UK was quite surreal.

Having seen photos and film footage of it all my life I was on cloud nine as I tried to take in the incredible scenery on a particularly bleak winter

day. It was obvious that the weather was about to turn so we headed out for a quick tour on foot and the traditional photo on Swilcan Bridge and then followed a four ball up the 18th to the clubhouse as it started to sleet!

A road trip was in order as we were due to meet the other International Summit delegates the next day, so we headed off and called by as many courses as possible, including those on the recently renamed 'Golf Coast Road'. This incredible stretch of road runs for about 30 miles and has more than 20 golf courses along its route including gems such as Musselburgh, Gullane, Muirfield and North Berwick.

To actually see these courses first hand was mind-blowing to say the least, even though the outside temperature was mind-numbing. One of the things that struck me was the simple way the courses were presented with no great fanfare but just amazing golf holes in an equally amazing setting.

Almost all had very low key course furniture particularly around the tees and most still employed the old sand and rubbish bin stand positioned adjacent to the daily tee markers. Some of the signage was interesting, particularly when the course was located near public thoroughfares. Many had public access tracks through the course with a simple sign saying 'Beware of golf balls from the left', so I gathered they were not too big on WH&S.

I have always been a bit of an Alister MacKenzie fan and I knew that his first ever course was near Leeds so I trekked off late one afternoon to have a look. To say it was amazing is an understatement. Although quite a flat property, the heather and low shrubs on the course coupled with the bunkering gave it a very Royal Melbourne feel. The bunkering was not on as grand a scale as RMGC in size or number, but was very similar in shape and the club prides itself on the fact that it is very close to what the Doctor originally laid out, especially after major works through the 1990s restored many of the original features.

### PROFESSIONAL DEVELOPMENT

On to Harrogate and one of the first presentations we sat in on was David Bancroft-Turner's seminar. David is presenting at the 30th Australian Turfgrass Conference on the Gold Coast this June as part of the Jacobsen-sponsored Monday workshops.

David is an authority on how to handle politics within a golf club and has some excellent strategies on how to deal with this common issue. His presentation was one of the highlights of my time in the UK and I took away a number of very good pointers. His presentation on the Gold Coast is not to be missed.

We also caught a large part of Professor Karl Danneberger's presentation and again came away suitably impressed. Karl will also presenting a Monday workshop on the Gold Coast and as well

A good idea – North Berwick GC



as being a wealth of knowledge, is, like many of our visiting American speakers, a very approachable fellow.

After a welcome dinner for the international delegates, which included British delicacies such as Game pie, a pheasant wrapped in ham and a roast haunch of Venison (I'm sure they were getting back at us for making them hold snakes and cuddle crocodiles when they were Down Under in 2012), Monday saw the formal start of the Summit chaired by outgoing BIGGA chairman Tony Smith.

Among those attending were representatives from the United Kingdom, American, Irish, Czech Republic, Canadian, FEGGA and, of course, Australian associations. FEGGA is the Federation of European Golf Greenkeepers Association and represents 24 smaller associations across Europe, so there was an excellent blend of experience around the table.

International updates were tabled with some excellent discussion on programmes and ideas that have been implemented successfully (and not so successfully) around the world. It was discouraging to hear that the Irish association is really under pressure as are their member clubs as they struggle to overcome the economic downturn affecting the country.

Topics such as education, environmental sustainability, promoting the profession, economies of scale, government funding and research funding



were discussed at length with many issues common among the group.

The following day dawned with a very thick frost and it was time to visit the Exhibition Hall for the trade show component of the week. The BTME show is held in four adjoining halls that look quite disjointed on the plan but actually flow quite well. Attendance numbers were very high (some 4700) and all of the stands looked busy.

It was a great to meet up with Ray Dufty and wife Dorothy of Tru Turf fame on their distributor's stand as well as Graeme and Clare Dryden on the Graden UK distributor stand. It is always pleasing to see these Australian born and bred companies that have taken their products to the world so successfully.

**The BIGGA Turf Management Exhibition takes over the small North Yorkshire township of Harrogate every January**

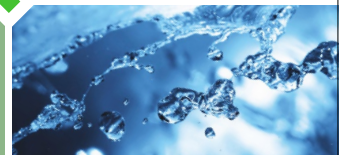


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**The 7th green at Royal Lytham & St Annes**

The education component of the conference seemed to take a bit of a back seat with a large number of concurrent sessions covering a broad range of topics available. There were a combination of half-day, one-day and two-day workshops which included topics such as 'So you want to be a golf course manager', 'Renovating your golf course', 'Turfgrass, soils and fertilisers', 'Budget building for golf courses' and even 'Mathematics for modern greenkeeping'.

These were followed by smaller 'seminar' and 'focus on' sessions which covered everything from bunker management, the latest in turf research from the STRI, social media, wash down bay compliance through to presentations on venues such as Wimbledon. The biggest crowd and with a queue 60 metres long to get in was saved for a presentation by Steve Chappell, course manager at Gleneagles which is hosting the Ryder Cup in September. It was interesting that most of the locals that we spoke to were very keen to talk up the Europeans' chances in the Ryder Cup, but were a bit sheepish whenever cricket was mentioned!

In contrast to our own conference, where WH&S policies overrule what can happen and dictate the width of aisles etc, I would think that the BTME trade show has possibly outgrown the venue. It felt rather cramped and the low roofline also made for a noisy environment. A number of the educational sessions seemed a little rushed and (I hope the Brits don't read this far into the report) I think our educational offerings, while not covering as many topics, are far superior in subject matter.

One of the highlights of the conference was the 'Welcome Celebration' where numerous awards were presented and the 'voice of golf' Peter Alliss addressed the audience relating tales of his many

years commentating golf. What I never realised was that Alliss was an accomplished player in his own right, with more than 20 tournament victories to his name.

He tried to be as complimentary as possible about our profession as a former pro can be, but did relate one funny story. In all his years of involvement in golf he never got angry with anyone enough to want to "bonk them on the nose" ... except Sir Nick Faldo on several occasions!

Golf course management related conferences are pretty much the same the world over with a very convivial atmosphere ever present. The sheer numbers of delegates in Harrogate and the fact that BIGGA virtually owns the town for the week made it a very engaging place to be and the hospitality was to behold. It was very pleasing for me that although the numbers are smaller at our events which may make the organisation easier, I think we compare very favourably with our British cousins, if not a little in front on the comparison stage.

### ROYAL HIGHLIGHT

With the BTME over for another year I embarked on a solo road trip across to the west coast of England to have a look at a few golf courses before heading home.

I arrived at Royal Lytham and St Annes Golf Club (the scene of Adam Scott's agonising Open Championship loss two years earlier) and literally couldn't get out of the car due to the weather. The weather had cleared 24 hours later and I was able to have an extensive look around.

I was very impressed with the turf quality but also the location of the course which is in the middle of a suburb with a train line adjacent to the boundary. For the most part, however, you couldn't see out of the property when you were on the course such was the dramatic effect of the mounding.

I then travelled further south to Royal Liverpool Golf Club, Hoylake, scene of this year's Open Championship. Unfortunately torrential rain started to come down and all I could do was drive around the boundary and admire from afar, but by the look of it and its location on the Irish Sea you won't want the wind to be blowing anything like it was for me come July. 🌿

**Peter Lonergan with Australian exhibitors Clare Dryden (Graden) and Ray Dufty (Tru Turf)**



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A lack of colour and growth are the downfalls of pure couchgrass sportsfields over winter. High-use areas can be denuded which reduces the visual and playing quality of the whole field

# Oversowing ryegrass into couch sportsfields

Australian researchers Dr Phillip Ford and Dr Jim Hull conducted a trial to assess football surface quality and couchgrass recovery with or without winter oversowing with perennial ryegrass.

Couchgrass provides an excellent, drought-resistant sports ground surface. However, it lacks colour and growth during the winter football season. Wear and tear accumulates as the winter progresses and the dormant couchgrass is unable to recover. By late in the season high-use areas such as goal squares can be denuded, which reduces the visual and playing quality of the whole field and potentially increases the risk of ground-related injury.

Winter oversowing of couchgrass with perennial ryegrass retains green colour and has other potential benefits. It can lead to drier grounds because perennial ryegrass has an ET rate around 2mm/day higher than dormant couchgrass during winter. More importantly, the active winter growth of perennial ryegrass can provide recovery from wear, reduce surface damage and hopefully prevent denudation of those high-wear areas.



By late August the percentage groundcover on the pure couch field had fallen to an average of 6 per cent on the high wear areas

Despite this, both authors of this report have been sceptical about oversowing couchgrass and reluctant to endorse the practice. We have seen situations where oversown perennial ryegrass has come to dominate and even eliminate couchgrass from the sward. It is hard enough to convince ground managers to convert to couch (as the conversion itself is a difficult process), so the last thing you want to see is the couchgrass convert back to ryegrass through poor management of the oversowing process.

Perennial ryegrass is an aggressive grass, competing with the couchgrass for space, light, water and nutrients. It is also widely believed that ryegrass is allelopathic to couchgrass (allelopathy is where a plant exudes biochemicals that inhibit other plants). And there is a further claim that high-endophyte ryegrasses are more allelopathic to couchgrass than nil-endophyte ryegrasses.

With a lack of reliable data on the benefits and best practices in regard to oversowing perennial ryegrass into a couchgrass base, this trial, initiated and funded by PGG Wrightson Turf, aimed to generate data in order to assist turf managers. The project had two principal aims:

- To measure the difference in turfgrass coverage, playing quality and colour on a pure couch football field compared to two fields oversown with perennial ryegrass; and

- To assess couchgrass recovery in spring once the perennial ryegrass had been killed out. The authors wanted to see if the perennial ryegrass had caused any thinning of the couchgrass sward and, particularly, if a high-endophyte cultivar had done any more thinning than a nil-endophyte cultivar.

## PROCEDURE

Three couchgrass soccer fields were available for the trial work thanks to the generous assistance of Matthew Cairns and his team at Blacktown International SportsPark in western Sydney.

The first field was kept as pure couch (Legend on a sand profile) for the whole winter. The second field was immediately beside the first one and identical in all respects except that it was oversown for the winter with plots of two different Mediterranean perennial ryegrasses, a nil-endophyte type and a high-endophyte type. The third field was 50 metres away and had an unknown couchgrass (probably Wintergreen) on a sandy-loam profile. This third field was oversown with a Continental perennial ryegrass. Continental ryegrasses are darker green than Mediterranean types, but have a much lower winter growth rate.

The oversowing operation was conducted on 3 April 2013. All three fields were in excellent condition with a full cover of couchgrass at the start of the trial. The ryegrass treatments were sown at a rate of 370kg/ha using a dimple seeder. The oversown fields were kept out of play for two weeks following oversowing and subsequent rainfall ensured successful germination and establishment.

The grounds were assessed three times during the football season – 30 May, 9 July and 29 August 2013. Colour was assessed using a Fieldscout Turf Colour Metre which gives a Normalised Difference Vegetation Index (NDVI) value ranging from 0, where there is no green colour, through to around 7.5 for a dark green, fully grassed plot.

Percentage groundcover was assessed visually with the aid of a gridded square, randomly dropped onto the turf surface. Overall playing quality was based on an assessment of firmness and traction and judged on a 0-9 scale where 0 was unplayable and 9 was perfect quality. Values below 5 were considered unacceptable.

At the end of the football season (2 September 2013) the perennial ryegrass was chemically removed with a sulfonylurea herbicide labelled for that use and post-season couch recovery was assessed in late October.

All the assessments were done on a low-wear zone, a medium-wear zone and a high-wear zone. However, by far the greatest impact of the oversowing treatments was seen on the high-wear zones, so the data in this report will focus on that. Those wishing to read the complete report, which includes assessments on the low and medium-wear zones, can find it at [www.pggwrightsonturf.com.au](http://www.pggwrightsonturf.com.au)



## RESULTS

It was impossible to ensure that the amount of wear on each field was the same, so the results for each field are presented separately and then the discussion will make general comparisons between the three fields.

### FIELD 1: PURE COUCHGRASS

As Table 1 (below) shows, groundcover on the high wear zones of the pure couchgrass field had fallen to an average of only 6 per cent by late August (see photo bottom opposite page). NDVI colour didn't register due to the lack of groundcover and the fact that any couchgrass remaining was dormant. Playing quality was rated at 4, which is unacceptable, although there was still some traction provided by the rhizomes blended through the surface.

Post-season recovery was starting from a very low base (6 per cent groundcover), but by late October the couchgrass had recovered to 55 per cent (see photo above).

TABLE 1: PURE COUCHGRASS FIELD

	Groundcover (%)	NDVI colour	Playing quality (0-9)
<b>30 May</b>	89	0	6.9
<b>9 July</b>	91	0	7.0
<b>20 Aug</b>	6	0	4.0
<b>29 Oct</b>	55		

The low and medium-wear zones on the pure couch field were actually very good, with a percentage groundcover around 90 per cent and an overall playing quality around 7. It was the high-wear zones that rated poorly and which dragged down the overall appearance and playability of the field. If a couchgrass field is only exposed to low traffic, the main benefit from perennial ryegrass oversowing would be simply in improving the colour.

By late October the percentage groundcover in the high-wear areas on the pure couch field had recovered to an average of 55 per cent



◀ A high-wear area on the couchgrass field oversown with a high-endophyte Mediterranean-type perennial ryegrass in late August. Compare this with the pure couch field at the same time on page 52

### FIELD 2: COUCHGRASS OVERSOWN WITH NIL/HIGH-ENDOPHYTE RYE

Oversowing couchgrass with a Mediterranean-type perennial ryegrass caused a dramatic improvement in the quality of high-wear zones in the field (see Table 2 below). At the end of the football season groundcover was retained at around 90 per cent, colour at around 5-6 and playing quality in the range of 5.8-7.8.

The high-endophyte ryegrass performed a little better than the nil-endophyte variety during the season (it had also shown faster germination and establishment in April), although couchgrass recovery in the spring was a bit slower with the high-endophyte cultivar. Even so, the 70 per cent couchgrass content in the high-endophyte plots in late October was much better than the 55 per cent couchgrass content on the pure couchgrass field next door.

Both the high-endophyte and the low-endophyte varieties performed well and the decision on which to use would depend on the potential benefit of endophytes on a particular field. Endophytes deter insect pests, so if a field has a history of pest damage over the winter, including damage from foraging birds, then using a high-endophyte ryegrass makes sense. In this trial there was no evidence of insect presence, but the principle still holds.

The high-endophyte ryegrass used in this trial is a new combination of an elite Mediterranean-type perennial ryegrass with good germination even in cold temperatures, high winter growth rate and containing a unique endophyte (branded as AvaneX®) developed to deter insects, birds and

### TABLE 2: COUCHGRASS OVERSOWN WITH NIL/HIGH-ENDOPHYTE RYE

	Groundcover (%)		NDVI colour		Playing quality (0-9)	
	Nil-endo	High-endo	Nil-endo	High-endo	Nil-endo	High-endo
<b>30 May</b>	98	90	2.9	6.0	7.5	7.3
<b>9 July</b>	93	95	6.5	6.5	7.5	7.5
<b>20 Aug</b>	93	90	5.0	6.3	5.8	7.8
<b>29 Oct</b>	88% couch	70% couch				

even mammals from eating the turf. But to repeat the earlier point, even with this new, highly effective endophyte, couchgrass recovery in the springtime was excellent once the ryegrass had been removed.

The conclusion from this field is that oversowing with perennial ryegrass solved the major winter problems of a pure couch field. It provided green colour and prevented denudation even on high-wear areas. It appeared to protect the underlying couchgrass from damage and it did this without retarding the couchgrass recovery in the springtime. By late October, couch recovery on these oversown fields was far more advanced than on the pure couch field.

### FIELD 3: COUCHGRASS OVERSOWN WITH A CONTINENTAL-TYPE RYE

This field had very light traffic compared to the first two, so it is not valid to compare them directly. However, oversowing this couchgrass field with a Continental-type ryegrass provided similar benefits to that seen with the Mediterranean-types. Even in the high-wear zone at the end of the season, groundcover was 100 per cent and colour and playing quality were very high (see Table 3 and photo top of page 55).

Of particular interest was the spring recovery of couchgrass on this field. The ryegrass coverage was so dense through the winter that both authors were worried it might have completely smothered the underlying couchgrass. However, once the ryegrass had been killed out in September, there was a rapid recovery of couchgrass to 86 per cent groundcover by late October.

### TABLE 3: COUCHGRASS OVERSOWN WITH CONTINENTAL-TYPE RYE

	Groundcover (%)	NDVI colour	Playing quality (0-9)
<b>30 May</b>	100	7.1	8.5
<b>9 July</b>	95	6.9	8.8
<b>20 Aug</b>	100	7.1	8.5
<b>29 Oct</b>	86% couch		

### CONCLUSIONS

There is no doubt that couchgrass provides a high quality, environmentally sensible surface for sports fields. No one would wish to see couchgrass coverage lost, especially with the summers we have been experiencing lately.

If a couchgrass field is only exposed to low traffic through the winter, it can retain perfectly acceptable groundcover and playing quality, and even a reasonable colour, so oversowing is not really necessary. It is an option that might be taken to further improve colour, or if a perennial ryegrass surface is specifically required (in soccer, for example).

However, couchgrass fields exposed to high traffic, even if it is only in certain zones, can benefit greatly from winter oversowing with perennial



ryegrass. In this trial, oversewing clearly improved colour, playing quality and groundcover retention. The ryegrass appeared to protect the underlying couchgrass from damage and it did this without retarding couchgrass recovery in the spring. In fact, once the ryegrass had been chemically removed, couchgrass recovery was faster on the oversown fields than on the pure couchgrass field.

There was no major difference in couchgrass recovery between either a high-endophyte or low-endophyte Mediterranean ryegrass or a Continental ryegrass. The choice of perennial ryegrass can be based on factors such as preferred colour, the requirement for winter growth rate or the potential benefit from endophytes for pest control.

The conclusions summarised above are within the conditions of this trial, three conditions in particular.

- The couchgrass fields were fully covered at the start of the football season;
- The oversown perennial ryegrass was allowed two weeks to form a good cover before play re-commenced on it; and
- The oversown perennial ryegrass was only in the ground between 3 April and 3 September (five months).

This last point is key. It is the opinion of both authors that the main problem with perennial ryegrass causing a loss of couchgrass is from leaving it in for too long. It is strongly recommended

to undertake an autumn sowing and a chemical transition in springtime.

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High-wear area on a couchgrass field oversown with a Continental-type ryegrass (29 August)



Pure couch field (foreground) and the field oversown with Mediterranean-type ryegrasses (background) on 29 August

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**the one man cleaning crew**



# Pambula-Merimbula Golf Club, NSW

Having started his turf career as an apprentice at Pambula-Merimbula Golf Club, Pat Wilson now finds himself as superintendent of the 27-hole complex on the NSW south coast. Here he gives ATM an inside look at his operations, including the recent major project to overhaul course's ailing bunkers.

**Above: Pambula-Merimbula Golf Club is a 27-hole complex on the NSW south coast and pumps through 60,000 rounds each year. Pictured is the par three 17th**

**Superintendent:** Pat Wilson.

**Nickname:** Wilso.

**Age:** 31.

**Family:** Wife Lauren and six-month-old daughter Milla.

**Years as a superintendent:** 2.5 years.

**Association involvement:** AGCSA (2.5 years), NSWGCSA.

**Turf management career:** Pambula-Merimbula GC (apprenticeship), Tiburon GC (Naples, Florida – The Ohio Program), Robert Trent Jones GC (Gainesville, Virginia – 2005 Presidents Cup), Coombe Hill GC (Surrey UK), All England Lawn Tennis Club (Wimbledon, UK), Tura Beach GC (assistant superintendent), Pambula-Merimbula GC (superintendent).

**Qualifications:** Cert III Horticulture, Sports Turf Management.

**Where in Australia is Pambula-Merimbula GC?**

Pambula-Merimbula is located on the far south coast of NSW, about one hour from the Victorian border. It is a big tourist destination (mainly for the Mexicans south of the border) but it has a great, relaxing coastal feel about it.

**Give us a bit about your background in turf management.** My career started at Pambula-

Merimbula GC as an apprentice after being a keen junior golfer at the club. I have always had a passion for golf courses which led me down the path of doing The Ohio Program in 2004. My first placement was at the 36-hole Greg Norman designed Tiburon GC resort in Naples, Florida which held the Franklin Templeton Shark Shootout each year. After that I worked at Robert Trent Jones GC helping prepare the course for the 2005 Presidents Cup. Part of our duties at RTJ included looking after George Bush's green at the White House! I then volunteered at TPC Sawgrass for the Players Champs.

After the US I headed to the UK to work at Coombe Hill GC in London and then on to Wimbledon for the 2006 championships. I returned home to a job as assistant superintendent at Tura Beach GC, then applied for the superintendent's position at Pambula-Merimbula GC and haven't looked back since.

**Give us an overview of Pambula-Merimbula GC and some of its unique characteristics.** Being a 27-hole golf course has its pros and cons. The best part about having three nines is you can always work on the social nine and have the ability to shift the comps around. We occasionally have three tee starts which means the whole course is full by 8.30am giving us very little time for course set up

with limited staff. We have over 1000 kangaroos which 'maintain' our rough so it is hard to get good definition and they seem to love lying in the bunkers just after they have been raked!

From a turf management perspective we have so many different microclimates and a lot of shade issues out the back. I would love to be able to maintain all greens the same way but every single one is different and the challenge is to get them all playing the same. We have some nice strong par 4s with very generous fairways.

**How have you fine-tuned your turf management operations during your time as superintendent?**

One of the biggest projects we have completed recently is the refurbishment of our bunkers (see more about this project on page 58) which has freed up a lot of time and money to spend on improving the health of the turf surfaces.

I use a soil conditioner from Natrakelp on greens, tees and more recently fairways which holds a great amount of moisture at a quarter of the price of synthetic wetters. Using this along with a foliar applied kelp has proven to keep all the playing surfaces in really healthy condition, minimises water usage and produces better surfaces. We are also using far less chemicals to prevent and control pests.



We also do a lot more verticutting on greens to promote more bentgrass into the surface. Deep watering practices have also proven to be very important too and we are seeing huge improvements in all aspects of the golf course. Attention to detail and staff training is also high on my agenda.

**The Pambula-Merimbula crew, headed by course superintendent Pat Wilson (third from right)**

**Any special environmental considerations that you have to incorporate into the management of the course?** We are in a very high sensitive zone as far as the environment goes being close to the Merimbula lake which is home of a multi-million

## AT A GLANCE – PAMBULA-MERIMBULA GOLF CLUB

**Course specs:** Pambula-Merimbula GC is a 27-hole complex with two practice greens and a nursery green. The site totals 85 hectares of which 50ha is maintained and 35ha native bush. We have three courses:

- Blue nine (1-9) 2801m (open parkland style);
- Red nine (10-18) 2989m (carved out of the native bushland); and
- Gold nine (19-27) 3211m (carved out of the native bushland).

**Turf:** Greens 1.5ha *Poa/bent*, 15ha of kikuyu fairways, 1ha of kikuyu tees, 0.5ha of cool-season tees (*Poa/bent/rye*), 20ha of rough, 8ha kikuyu surrounds.

**Cutting heights:** Greens 3mm, kikuyu tees/fringes and aprons 7mm, cool-season tees 12mm, fairways 13mm, surrounds 18mm and rough 51mm.

**Members:** 3000 (1000 golfing).

**Annual rounds:** 60,000.

**Major events:** Sapphire Coast Week of Golf (700-800 players and 2300 rounds in one week); Ace of Clubs.

**Annual budget:** 250k operating cost, 450k wages (including super, workers comp and leave provisions).

**Staff structure:** Pat Wilson (superintendent), Michael Twigg (assistant superintendent), Scott Doubleday (mechanic), Colin Badrock



(greenkeeper), Daryl Cook, Jason Small and Ben Dawson (groundsmen) and Dylan Cook (apprentice).

**Climate:** Gets warm in the summer (not hot) and cool in the winter (not cold). We have a few frosts each year and the odd day in the high 30s early 40s. Annual rainfall is 750mm, with the wettest months usually February/March, especially when the rain comes in from the ocean.

**Soil types:** Varies between native sands with a few clay belts going through the course and some marine type mud as we are just above the high tide mark. Greens were all built at different stages but are all pretty good profiles with the last nine holes being the closest to USGA spec.

**Water sources:** 100 per cent treated effluent (treatment plant is right next door).

**Irrigation system:** Toro Site Pro with Osmac

handheld communication. It is an old hydraulic system that needs a lot of love and maintenance. I am lucky to have a great 2IC who keeps all the problems to a minimum. Greens sprinklers are all Toro valve in head 730s, fairway sprinklers are Toro 690s straight up the guts. We need to turn a lot of gate valves off to isolate a single leak.

**Renovations:** Hollow tine, scarify and topdress just filling the holes and a light coverage on top in late October (after the Week of Golf). Major vertidrain with 3/4" tines in the autumn and 8mm mini-tine in between. I would like to say monthly but it's more likely five times a year. Heavy scarify on tees and fairways in two directions in November.

**Major disease pressures and how you combat them:** Over the winter period the kikuyu fairways get hit really badly with fusarium. To combat this problem we have reduced the mat and thatch levels which is ongoing. We also use a lot of kelp-based products which we have noticed great results with in a short period of time and also reducing the amount of N in the plant leading into the cooler months. I have got a good solid preventative programme for the greens, especially for pythium and we also put out a monthly application of beneficial microbes over the warmer months.

# MAJOR PROJECT FOCUS: BUNKER RECONSTRUCTION



Prior to the refurbishment, heavy rain or irrigation would leave Pambula-Merimbula's bunkers in quite a state

Golf Shapes (Darby Muller) was appointed to undertake the bunker refurbishment works. Along with the installation of Kustom Bind we also took the opportunity to alter some shapes as well as remove a few which were replaced with grassy swales and hollows. Bunker surrounds were also reshaped to minimise water runoff into bunkers.

## MAJOR BENEFITS

Since the installation of the hard liner we have had three significant rainfall events with all producing over 150mm. Sand in the bunkers didn't slump and the bunkers drained effortlessly. Not once did we have to push up faces or pump out any water.

We get a lot of tree debris and leaf litter and before the refurbishment it was such an effort to do the faces and machine rake all the bunkers. Now we have the luxury of blowing the bunkers out and hand raking them on a regular basis, with minimal effort required to get a great finished product.

This snowballs on to so many different aspects of maintaining the course. We were never able to give our greens a nice deep water due to the bunkers turning into a sloppy mess, while the regular shallow watering we were employing was just encouraging the *Poa*. Since being able to irrigate correctly, we have seen the population of bentgrass go through the roof with a few greens that were 95 per cent *Poa* 12 months ago now 75 per cent bentgrass. This means less hand watering, less fungicides and more time to keep the rest of the course in good nick.

Having bunkers that are now such an asset makes my job much easier. The savings in both time and money are substantial as the figures below show. Over the last two years we have received over 20 days of 20mm or more which equates to about 1240 man hours and over \$41,200.

After a storm we can now put our efforts into an extra cut on all surfaces. I am also able to load up the spray schedule and apply a lot more kelp-based products and growth regulators which we never had the time to do before. - Pat Wilson

TABLE 1. BUNKER MAINTENANCE AFTER A 20MM RAIN EVENT

Job description	Man hours	Cost (\$)
Bunker pump	16	680
Push up faces	26	780
Machine rake	16	480
Hand bail water	4	120
<b>Total</b>	<b>62</b>	<b>2060</b>

One of the biggest projects we have undertaken at Pambula-Merimbula Golf Club in recent times has been the refurbishment of 41 out of our 52 bunkers.

This came about after a three week period in March 2012 where the course received a total of 342mm of rain which caused major damage to all bunkers. After the rain had stopped and the bunkers were pumped out, all drainage lines inspected. What we found was that the drainage component in all bunkers had been destroyed. Fortunately the surrounding area had been declared a natural disaster zone so the club was able to successfully lodge an insurance claim for \$250,000.

Once the approval note had been delivered we undertook some intensive research to make sure the money was spent wisely. The figures were done to do it in house, but like any major construction job the first thing that gets neglected is the condition of the golf course and we didn't believe this was fair on the members. As a

superintendent I am confident of taking on any construction job, but to be a professional about it the benefits of getting contractors in to do the job has far more positive benefits in the long run.

Our research involved which bunker liner we were going to install to protect the integrity of the bunkers. Previously we had used/tried fabric liners, however, they were only beneficial in protecting the bunker sand from the clay base and didn't prevent the bunker sand from slumping. That turned our thinking to hard liners and in the end we chose Kustom Bind.

Kustom Bind is a permeable, polymer-treated gravel layer which separates the bunker base from the sand. The process involves binding specified aggregates together (70mm thickness), which produces a drainage blanket for water to escape the bunker sand, enabling it to move laterally toward the drainage pipes. It eliminates the sand from becoming saturated and therefore slumping to the bunker floor.



Kustom Bind hard liner has been used on the refurbished bunkers



The recent refurbishment of 41 out of the course's 52 bunkers has realised significant savings in both time and money which has been put into other areas of course maintenance

dollar oyster industry. We are platinum members of e-par and they do a great job making sure we are compliant and having all the right processes in place to look after our surroundings.

**What are some of the major challenges facing Pambula-Merimbula GC both from a turf management and general club management perspective?** Our aging population and membership

at Pambula-Merimbula GC is definitely an issue and also time-poor people. The club can't afford to sit on its hands with these issues and is looking at different membership categories. I have started up a tradies golf afternoon once a month on a Friday and this has proven to be a success.

From a turf manager's side it is staying up to scratch and complaint with all the OH&S and environmental aspects that come with the job –

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Wilson uses a soil conditioner from Natrakelp on greens, tees and fairways along with a foliar applied kelp which help to keep all playing surfaces in healthy condition



where do you stop? E-par saves me so much time with the environmental side of things.

**How is Pambula-Merimbula GC faring in the water management stakes?** Quantity is not a problem but quality is. When all the tourists are in town the treatment plant cannot treat the water as well due to the influx of people, so when we use the most amount of water on the course it is at its poorest quality. As a result we rely on a lot of gypsum with any good flushing rains most welcome.

**The one product I couldn't manage my course without is...** Primo MAXX!

**Are expectations of course presentation and conditioning any less than that placed on your metropolitan counterparts?** Club members are always bringing something to the table but when it is a small issue you can handle that with ease. We get a lot of visitors from the metro clubs and they soon



Pambula-Merimbula GC resides on 85 hectares of which 50ha is maintained and 35ha native bush. It also has a healthy population of 1000 kangaroos

let our members know how good they have it. At the end of the day you can only do what you can with what you've got.

**How important are the relationships you have with other course supers/ reps?** I think these relationships are so important and I don't hesitate to let other supers and reps in on any issues I think they can help me with, whether good or bad. Also, a monthly game of golf or catch up is important with networking. I would like to expand my relationships with the metro supers, it's just hard as we are six hours from Sydney and Melbourne.

**What have you got in your shed?**

Toro 3150 greens mowers (x3), Toro 3150 tees/ fringes and aprons (x3), Toro 3100 D surrounds (x2), Toro 7000 fairway, Toro 3500D rotary surrounds, 400L Hardi boom and Kubota tractor, 320L Enviromist and Kubota tractor, Toro 328 rough mowers (x2), 7215 Vertidrain, Toro 5020 bunker rakes (x2), Ford 2120 tractors (x2) and John Deere 3320 hydrostatic drive (front end loader), tractor mounted debris blower, MDX workman (x2), Toro one tonner Workman, mixed utility vehicles (Ezgo, Gator), Toro topdresser.

Our rough cutters are always getting bashed around as we have a lot of tree roots and sticks to contend with. I am very lucky to have a great mechanic that keeps the fleet in good order; there is nothing he can't fix.

**Most pleasing/rewarding moment during your time as Pambula-Merimbula superintendent?**

Every Friday is rewarding for me after a week's hard work seeing the course presented the best we can and enjoying a beer with the boys. 🍷



# COLOSSEUM PERENNIAL RYEGRASS MEDITERRANEAN GENETICS SUPERIOR MODERN QUALITY



## NEW TORO MULTI PRO 1750 SMALL IN SIZE, BIG ON EFFICIENCY



shelves or corners for chemicals to stick on, which helps ensure a 99 per cent spray out and means no more building up of chemicals.

The 1750 is equipped with the new Quick Find sprayer control console, which helps the operator to intuitively find boom and actuator switches with the palm of their hand and places command of all key vehicle and sprayer systems at the operator's fingertips. The analogue pressure gauge and the new InfoCenter are smartly situated to keep all key sprayer data in the operator's line of sight.

A rugged triangular 5.6 metre wide spray boom provides fore and aft breakaway on impact while protecting nozzles. The booms are controlled with fast acting hydraulic boom actuators and rise into a crisscross position for easy storage and transportation.

A variety of attachments and accessory kits are also available to help save labour and chemical costs by simplifying the mixing and spraying processes. Among these include a Cleanload eductor kit, allowing quick and safe loading of any chemical without the need to first mix into a slurry, while a fresh water rinse kit feature streamlines the triple-rinse process.

"The Multi Pro 1750 is the result of hundreds of hours of customer input and exhaustive operator field testing," says Mark Johnson, senior sales manager, golf equipment at Toro Australia. "Operators will be able to save time and money with the redesigned polyethylene elliptical tank, six-diaphragm pump and QuickFind precise spray control that ensures accurate and precise chemical application."

**For more information on the Multi Pro 1750 call 1800 356 372, your local area sales manager or visit [www.toro.com.au](http://www.toro.com.au)**

Toro's new Multi Pro 1750 sprayer has a six diaphragm pump which produces up to twice the flow of two-diaphragm pumps



**A**GCSEA Platinum Partner Toro has added to its turf vehicle sprayer fleet with the release of the Multi Pro 1750 which is designed to manoeuvre in smaller turf areas such as tees, greens and sports fields to improve productivity and spray accuracy.

The Multi Pro 1750 leverages the advanced system design of Toro's heavy duty Multi Pro 5800 sprayer with intuitive controls and productive vehicle features. With a tank capacity of 662 litres (175 gallons), the 1750 has an industry-exclusive six diaphragm pump which produces up to twice the flow of two-diaphragm pumps to simultaneously achieve higher spray volumes and aggressive agitation needs.

While spraying, the pump continuously agitates tank contents for a homogeneous mix and more accurate application of chemicals from start to finish, saving chemical costs and ensuring efficacy. A redesigned elliptical polyethylene tank has no

## THE NEW INTERFACE OF FUNGAL CONTROL

AGCSA Silver Partner Bayer has launched its new generation turf fungicide Interface which boasts the company's StressGard Formulation Technology. Interface (active ingredients iprodione 256.4g and trifloxystrobin 16.0g) delivers control and long lasting protection against six key turf diseases – dollar spot, brown patch, fusarium patch, helminthosporium, rust and grey leaf spot.

Bayer research manager Jyri Kaapro says that Interface can be applied on closely mown, professional and recreational turf during the spring/summer/autumn when turf is actively growing, during the winter when turf is slow growing or near dormant, or at times of increased disease stress. For best results, apply just before or at the first signs of disease to prevent scarring. Interface is a Group 2, 11 fungicide and can be used at any stage of the disease cycle and at any time of the year. Rate of application is 12.5l/ha.



**Bayer's new Interface Turf fungicide contains the company's unique Stressgard Formulation Technology**

Interface, available from distributor outlets in a 5L pack size, has multiple modes of action to manage fungicide-resistant plant pathogens. StressGard Formulation Technology is contained in Interface for plant health promotion effects, summer stress reduction, UV radiation management and improved turf colour and density.

Unique to Bayer, StressGard Formulation Technology has taken over 15 years of research and development and has been specifically designed for turf. It's most advanced turf formulation, Bayer has fine-tuned it to upgrade the performance of the product.

In addition to the launch of Interface, Bayer also recently announced changes to the label of its sulphonylurea turf herbicide Tribute. The updated label includes:

- The addition of three new weeds – the control of goose grass (*Eleusine tristachya*) and paspalum (*Paspalum dilatatum*) and suppression of kikuyu (*Pennisetum clandestinum*);



- Deletion of the 10mm restraint concerning short-mown turf meaning Tribute can now be used on couchgrass golf and bowling greens;
- Change from four weeks to one week regarding the restraint on overseeding with ryegrass; and
- The addition of zoysia as a tolerant species.

For more information on both Interface and Tribute visit [www.bayeres.com.au](http://www.bayeres.com.au).

## NEW GLOBE GROWING SOLUTIONS WEBSITE



Globe Growing Solutions has launched its new website [www.globegrowingsolutions.com.au](http://www.globegrowingsolutions.com.au). The new online portal is easy to navigate, with a clean and uncluttered design and improved functionality to showcase the company's range of products and services.

The website provides access to product information and labels, material safety data sheets and brochures for the core range of Globe products. There is a subscription form for signing up to the monthly Globe Growing Solutions e-newsletter, plus links to other websites within the Globe business such as Globe Analytical, Globe Pest Solutions and Equipment Solutions.

"We believe that our new website is a valuable asset to our business," says Globe Growing Solutions sales and marketing manager Kevin Booth. "It gives our customers, both existing and potential, a great new resource for easily accessing information. It has taken a lot of time, effort and money to build our new website and we are more than happy with the final product and we encourage everyone to have a look."

## CTM NEW VIC REDEXIM DISTRIBUTOR

Complete Turf Management (CTM) has been appointed as the new Redexim distributor for Victoria, complementing its operations in Queensland, NSW and ACT. Redexim manufactures a range of over 120 turf renovation and maintenance machines such as the Verti Drain.

Redexim's Australasian manager Peter Ellis says that Murray Swindles and his team at CTM have progressively built a strong reputation with their client base across the Queensland and NSW region. "CTM has worked closely in assisting their existing clients with the Redexim range and we see this appointment as a positive step forward."

For all existing Victorian client needs, contact Murray Swindles on 0439 550 074 or email [murray@ctmqld.com.au](mailto:murray@ctmqld.com.au)

## INTERCEPT LABEL CHANGES

The Australian Pesticides and Veterinary Medicines Authority (APVMA) recently approved a change to the re-entry period for MATCHplay Intercept 480SL turf growth regulator.

The 2012 registration for Intercept 480SL came with a re-entry restriction of seven days and over the past nine months Living Turf has worked to satisfy

the APVMA's data requests to reduce this re-entry period. In December 2013 Intercept regained full APVMA approval with a four hour re-entry period to make it of more practical use for turf managers.

## JOHNSTONE STARTS NEW IRRIGATION CONSULTANCY

Long-serving irrigation industry practitioner Scott Johnstone has launched an independent specialist business in Queensland called WaterEt Irrigation and Pump Consulting.

With 30 years industry experience, Johnstone is a Certified Irrigation Designer with Irrigation Australia. He previously held senior positions with Rain Bird and Southern Cross and for the past five years was manager of irrigation services for Scape Shapes, one of Queensland's largest commercial construction companies.

WaterEt Irrigation & Pump Consulting offers a range of services, including planning, design, specification, quantity survey, cost assessment, tender documentation, contract management, site inspections, audits, operator training and water management plans. Johnstone can be contacted on (07) 5576 1014, 0401 515 075 or email [scottj@wateret.com.au](mailto:scottj@wateret.com.au).



Scott Johnstone has recently launched WaterEt Irrigation & Pump Consulting

## INDUSTRY APPOINTMENTS AND ANNOUNCEMENTS



### JACOBSEN SHAKES UP EXECUTIVE TEAM

AGCSA Gold Partner Jacobsen has begun 2014 with a reshuffle of its senior management team. Just before Christmas the company announced that Alan Prickett (pictured top), until recently managing director of Jacobsen Asia Pacific, had returned to the UK to take up the role of managing director at Ransomes Jacobsen.



Back in 2011 Ransomes Jacobsen was assigned responsibility for the Asia Pacific region within the Jacobsen group and Prickett was promoted from sales director, based in Ipswich, UK to the new role of managing director Asia Pacific based in Singapore.

Following Prickett's new appointment, shortly after New Year it was announced that former director of marketing and product management Richard Comely (pictured middle) had been promoted to director of global product management, responsible for a team of product management specialists in both Ipswich and at the company's head office in Charlotte, North Carolina. As a result of Comely's move into a dedicated and focused product management role, Gina

Putnam (pictured bottom), the company's former international marketing manager, has been promoted to director of marketing and communications - international.



### FOGG DESCENDS ON LIVING TURF

Former Queanbeyan Golf Club course superintendent Scott Fogg (pictured) has joined Living Turf as a technical sales representative. Fogg will service the southern NSW and ACT region in his new role and replaces outgoing rep Tony Fogarty. Fogg's addition comes at the same time as Kodi Becket's appointment to the newly created role of general manager, Living Turf Queensland.

"Scott has over 20 years of practical experience and a strong reputation in the turf industry," says Living Turf managing director Rob Cooper. "Add to that his likeable personality and relaxed style and we believe Scott will become our market leading golf turf specialist."

In another move within the company, Ryan Feeney has been promoted to supply chain manager and tasked with improving efficiencies including but not limited to customer service, logistics and supplier management. Fogg can be contacted 0407 100 401 or email [sfogg@livingturf.com](mailto:sfogg@livingturf.com)

GCSAQ 

Shaun Cross is this year's recipient of the GCSAQ Achievement Award

Once again the weather has been the dominant force in Queensland golf. The south east has been very dry considering this is supposed to be the wet season and the storms and rain that have arrived have been spasmodic to say the least with falls of 50mm about and nearby courses receiving nothing.

I have received just 90mm by the end of February with two falls of 20mm included in that. Brisbane Airport has had 115mm with a 60mm fall included and the Sunshine Coast has had just 70mm. But head further north to Cairns and it is a different story with the wet season arriving right on cue for Cairns Golf Club superintendent **Brendan Clark** who has recorded 754mm thus far!! It never rains, but pours ....no, Queensland – beautiful one day... something like that anyway.

One thing that the dry conditions have favoured is golf and reports from across the state have been that player numbers have been up and courses very busy. After three consecutive wet and low player number Christmas holiday periods it was just the shot in the arm that many clubs needed, mine included. For example, on Friday 27 December there were more than 600 players registered with the pro shop to play at Coolie Tweed. They were still hitting off at 6.30pm with the prospect of getting about three holes in, but they paid their money so that's the main thing!

On 18 March the Queensland Golf Industry Awards will be handed out at Jupiters Casino on the Gold Coast. The GCSAQ will bestow six awards with the lucky winners being;

- **Shaun Cross (Byron Bay GC):** Chesterfield/John Deere Achievement Award;

- **Darren Allan (Ashgrove GC):** Bayer Environment Award;
- **Simon Winzar (Lakelands GC):** Toro Apprentice of the Year;
- **Adam Mills (Royal Queensland GC):** Nuturf Assistant Recognition Award;
- **Phil Newton (Horton Park GC):** KC Turf/Jacobsen Technician Award; and
- **Ross Sarow (Toro):** Industry Recognition Award.

I perhaps shouldn't say lucky as all the recipients have worked particularly hard, are dedicated to their positions and have earned the recognition. One of the very pleasing aspects was that all the superintendent nominations were submitted by the club themselves which is a terrific endorsement of our GCSAQ members. Here is a little more about each of the GCSAQ award recipients...

### SHAUN CROSS (BYRON BAY GC)

As mentioned above all our nominations came from the clubs themselves and I doubt any were as impressive as Shaun's nomination that was put forward by club captain Peter Sinclair on behalf of Byron Bay's committee. To quote some of the nomination...

"Shaun Cross has in the space of 10 years transformed a 'good track' into a first class regional golf course with arguably the best greens in the district. Day in, day out with a crew of himself and four others he produces a golf course in fantastic condition which draws many favourable comments from members and our large number of visitors. Shaun is a very disciplined, meticulous and professional superintendent with a detailed and

## VALE RUSSELL ANDREW COOK (1965-2014)



2014 got off to a sad start for the Queensland turf management community with the sudden death of Nudgee Golf Club assistant superintendent and AGCSA/GCSAQ member **Russell Cook**. Cook, the younger brother of The Grand Golf Club superintendent and former GCSAQ president **Rodney Cook**, was farewelled by family and friends on Monday 20 January with the wake held at Nudgee Golf Club. He was 48.

"We were all very shocked when we received the news that Russell had passed away," said Nudgee Golf Club superintendent **David Brushfield**. "Telling the news of Russell's passing to the groundstaff was very emotional and difficult as he, (wife) Leesa and (11-year-old son) Matthew had been friends for a long time.

"The groundstaff at Nudgee are all close and spend time with each other away from work, so many didn't want to believe the tragic news and just sat there in the lunch room for some time. The golf course was a strange place to be at for the rest of the week, with so many things reminding you of Russell.

"Russell was a bit of a prankster and liked to have fun during lunch breaks and the odd game of cricket after work. He loved his food and I nicknamed him 'the seagull' because he loved to see what everyone was eating and invite himself to sample their lunch. He loved his NRL and horseracing, but showed a great knowledge of most sports and, in most cases, when someone wanted to have a bet with him about the amount of rain that was going to fall or who would win a football game, he was 99 per cent of the time right.

"He was excellent in his role as 2IC and, if he chose to, would have been a very good superintendent. He will be very much missed by everyone at Nudgee Golf Club, especially the groundstaff, and we'll always remember Russell for his cheeky behaviour. More than that though, he was a great bloke."

Cook's turf management career spanned more than 25 years and began with an apprenticeship at Victoria Park Golf Course in Brisbane. That was followed by stints at St Lucia Golf Links and Gailes Golf Club where he rose to be assistant superintendent. After a period with Brisbane-based Turf and Irrigation, Cook was appointed assistant superintendent at the 36-hole Nudgee Golf Club, the first of two stints in the role which were broken up by a period with Globe. His most recent stint at Nudgee had been for more than seven years.

passionate approach to his chosen career". Says it all really and as a regular visitor to Byron Bay I wholly concur with Peter's sentiments.

### DARREN ALLAN (ASHGROVE GC)

Darren became Ashgrove course superintendent two years ago at a time when the club was in financial difficulties and little attention had been paid to environmental degradation for some time. The course, which is located in the foothills of the Taylor Range, had suffered severely from storms in the summers of 2011 and 2012.

With no funds available for restoration work, members were thinking about taking on these works themselves, but Darren quickly stepped in and took control and there is now a dedicated group of 20 volunteers every week that perform works on the course to do with environmental recovery.

Through Darren's contacts he has been able to source free woodchips for mulching along with plants to assist in stabilising the damaged creek banks, thus saving the club substantial amounts of money. The task is a 'work in progress' but a very encouraging start has been made and Darren has formed the volunteers into a productive group that now take great pride in their course.

### ROSS SAROW (TORO)

Ross has been with the various incarnations of Toro for 41 years, starting out with Scott Bonnar before

it become Rover Scott Bonnar, Rover Mowers and ultimately Toro Australia. Ross has held various roles along the way including national sales manager and corporate accounts manager but has always called Queensland home. He has been a great supporter of the GCSAQ and superintendents in general and is a worthy recipient of our Industry Recognition Award.

### SIMON WINZAR (LAKELANDS GC)

Simon has been involved in all aspects of course maintenance at Lakelands throughout his apprenticeship and has also participated in all construction and renovation projects on the course. These projects include assisting in AGCSA trials, bunker reconstruction and being actively involved in the club's Audubon environmental programme. Simon has also volunteered his time to assist at the Australian PGA Championships and has just started his Diploma course.

Congratulations to Shaun, Darren, Ross and Simon. Adam and Phil were profiled in ATM Volume 15.6 last year and joined the volunteer crew at Royal Melbourne for last year's Masters/World Cup double and enjoyed an experience of a lifetime. Many thanks to our great sponsors as without their support these awards would not happen.

**PETER LONERGAN**  
PRESIDENT, GCSAQ



Byron Bay Golf Club has gone from being 'a good track' to one of the region's premier golf courses

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At the recent turning of the sod ceremony at Hagley Oval in Christchurch were (from left) Ian Mckendry (NZ Cricket), Rupert Bool (head turf manager Hagley Oval), Ash Head (Hagley Oval), John Key (NZ Prime Minister), Gerry Brownlee (Minister for Canterbury Earthquake Recovery) and Steve Tsukigawa (Hagley Oval)

The summer period for managers of sports turf and facilities across New Zealand is often the most challenging. This past season has been no exception with demanding weather systems across the country ensuring turf managers are kept busy maintaining playing surfaces in top condition.

Summer and winter sports codes place huge demand on our stadia, schools and council grounds gearing up for winter codes whilst still providing for the summer events and the balancing act required is never easy as we try to please all the stakeholders.

However, the turf managers across New Zealand do a fine job and you only have to look at the likes of Eden Park which hosted Test and ODI cricket, the inaugural Rugby League Nines, NRL and Super 15 rugby union all within the space of a month.

Westpac Stadium in Wellington and Forsyth Barr Stadium in Dunedin also flip between multiple events and codes during the year.

To be able to deliver the quality experience for athletes and community recreation, our turf managers are at the cutting edge. Turf management teams are skilled in agronomy (plant and soil science), soil and mechanical engineering to deliver the innovation and technology transfer so our multifaceted grounds are used in peak condition all year round. Congratulations to all turf managers for another summer of outstanding achievement in delivering turf surfaces across New Zealand.

Finally, I would like to congratulate the Black Caps cleaning up the West Indies and India during the summer series. The cricket pitch quality was outstanding across all venues with nice pace and bounce in the wickets.

Hopefully this augers well for the Cricket World Cup in 2015 with Hagley Oval in Christchurch set to host the opening match of the tournament (New Zealand v Sri Lanka) on 14 February. With AMI Stadium out of commission due to the 2011 earthquakes, Hagley Oval has become the main cricket venue in Christchurch with two seasons of first class cricket having been played there. Recently the first sod was turned at the venue for the construction of a new pavilion and grass banks which are due for completion by October.

**IAN MCKENDRY**  
CHAIRMAN, STA NZ

It's full steam ahead into 2014 for STA QLD with a number of new initiatives and some exciting field days planned.

The committee has been working hard on a new partnership programme which we believe will cater for everyone. Up until now we have had a very simplistic approach to sponsorship which has just been at one level across the board. We believe this hasn't suited everyone's needs very well so we are currently in the process of sending a new prospectus out. Please get in touch with us if you missed out and are chasing one. And on the subject of sponsors, and this often gets said, don't forget to support those that support your association!

Our field day guys have been busy planning this year's events with the first for the year to be held on Tuesday 18 March at the Western Magpies AFL ground, featuring, among other things, a small engine workshop and appearance of a 'tornado machine'!? I haven't got a clue what that's all about

but it sounds pretty interesting. A new tool for the shed for special occasions? Don't miss this day!

On Tuesday 6 May we will have our AGM with the venue still to be announced. If you have a bit of spare time and enthusiasm and feel like standing for the committee then come along and put your hand up, it is very rewarding. If standing for the committee is not for you, then come along anyway and use your vote and your voice to help steer the direction of your association, or just come along for the networking. We will also be presenting this year's STA Queensland Graduate of the Year Award.

Without trying to get too far ahead, keep an eye out for our cricket day in July. Our cricket days always attract plenty of members and you are guaranteed to come away with a few new helpful tips for wicket preparations.

**MARTYN HEDLEY**  
VICE-PRESIDENT, STA QLD

find it hard to believe that February has already gone. After a nice Christmas day in Sydney with 25mm of rain, the next two months for the majority of NSW was a blur of hot dry days, a lot of irrigating during the day and watching dam levels drop to very low levels with declining water quality.

Thankfully the majority of the state received rain in the last two weeks of February to relieve this dire situation, even though it brought increased disease pressure on turf that had been stressed for a long period of time.

In the past few weeks we have been able to announce that **Russell Fletcher** from St Michael's Golf Club has taken a place on the NSWGCSA Board and will take over the role of treasurer from me. Unfortunately, at the same time **Dennis Grounds** has been granted a leave of absence from the board for a period of six months, but we are very hopeful that he will be able to return to his position after that time.

The final report for the Environmental Minimum Compliance Pilot Program is in the process of being written and we hope to be able to publish the results and a date for a workshop in the not too distant future.

Elsewhere our education officer **Mal Harris** is working hard at the moment (as well as

representatives from other associations) to ensure funding for Certificate IV Sports Turf Management is retained for next year as it is still not guaranteed at this point in time. We need the whole industry to support the current system of delivery of qualifications as we believe even Certificate III could be under threat soon.

At the end of February we held the first in a series of education days outside of Sydney, with a session at Pambula-Merimbula Golf Club on the far south coast hosted by CTM and Maxwell & Kemp. Committee member **Shane George** is devoting a lot of his time to organising more of these days to better serve our members outside of Sydney and is open to suggestions by superintendents in regional areas willing to host days like this.

Our Annual Ambrose event is on again at The Vintage Golf Club in the Hunter Valley on Monday 5 May and I advise all interested players to get their entries in as soon as possible as we have had full fields for the past couple of years.

With autumn upon us now, I wish everyone the best conditions to regain full turf coverage before winter and then minimal rain for winter.

**STEVEN JACOBSEN**  
PRESIDENT, NSWGCSA



**Russell Fletcher (St Michael's Golf Club) was recently appointed NSWGCSA treasurer**



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The new-look Manuka Oval played host to the PM's XI match against England in mid-January

Like most areas around the country Canberra experienced very hot and dry conditions throughout summer. Rainfall for December was around 30mm and for January a mere 5mm.

For those with warm-season grasses conditions have been quite favourable, particularly renovating these surfaces. Hot sunny days and warm nights really get these grasses moving albeit with the help of regular irrigation. For those with cool-season grasses plenty of water has been required to offset the very low rainfall figures. Early February brought more hot, dry conditions although the mid- to long-range forecast indicates some long overdue rain.

Late last year the STA ACT announced its four candidates for the Living Turf Student of the Year award – **Tim Jopling** (AIS), **Daniel Berton** (Gungahlin Lakes), **Simon Snedden** (Young Golf Club) and **Kurt Eldridge** (Bermagui Golf Club) – four terrific young men who represented their clubs very impressively.

We are very pleased to announce the winner is Simon Snedden who will now represent the ACT in the final of the AGCSA Graduate of the Year Award, sponsored by Toro at the upcoming Australian Turfgrass Conference on the Gold Coast. Tim Jopling will also represent the ACT in the STA's Sports Turf Graduate of the Year Award. Congratulations to both men; I'm sure they will maintain the high standards of our previous nominees.

Manuka Oval recently underwent a complete

reconstruction of the playing surface and had its grand unveiling when it hosted the annual Prime Minister's XI cricket match against England. The time constraints from finishing the reconstruction to the actual game were very tight to say the least and what a credit it was to curator **Brad van Dam** and his staff for the way they prepared the wicket and outfield.

There were plenty of runs in the new pitch as England showed making 270. It was just a pity the PM's XI couldn't match them and were dismissed for a miserly 100. There are three matches set to be played at this wonderful new venue as part of next year's Cricket World Cup. **(Make sure you check out Brad's feature article on the Manuka Oval redevelopment, pages 12-16 of this edition - Ed)**

Starting on 4 May Canberra will host, on behalf of NSW, the Bowling Greenkeepers Federation Week. The week will see bowling greenkeepers from NSW, Victoria, Queensland and South Australia compete for an array of championships. Each day will see the event hosted by a different club in Canberra. There will be Test matches including a night test, championship games, education seminars and tours of local turf facilities. The week will conclude with a gala dinner at Manuka Oval in the Bradman Room overlooking the new ground.

A reminder that our annual STA Golf Day will take place on 15 April at Gold Creek Country Club. The format is an 18-hole three-man Ambrose. Anyone interested in registering for this event should contact **Scott Harris** at [scott.harris@goldccc.com.au](mailto:scott.harris@goldccc.com.au).

The STA ACT Turf Seminar has also been locked in for 30 July. The seminar has this year been revamped with a new location and some new ideas that will assist sponsors to showcase their latest products. The Tuggeranong Town Sports Centre also allows sponsors to display and even demonstrate machinery if required.

There will be a diverse range of speakers including **Richard Forsyth** talking about the restoration of Royal Melbourne and the lead up to big events such as the Presidents Cup and recent World Cup of Golf. A full list of speakers will be published in our next report.

**DANNY HULL**  
 COMMITTEE, STA ACT REGION

## ON THE MOVE

**STU CAMPBELL:** From assistant superintendent Pelican Waters, Qld to assistant superintendent Horton Park Golf Club, Qld.

**COL CAULFIELD:** Appointed superintendent at Caboolture Golf Club, QLD (formerly superintendent at Pine Rivers Golf Club, QLD).

**JASON KELLY:** From assistant superintendent to superintendent at Royal Fremantle Golf Club, WA.

**DEAN LEWIS:** From assistant superintendent Heritage Golf & Country Club, Vic to superintendent Thurgoona Country Club, NSW.

**Changed roles? Email [brett@agcsa.com.au](mailto:brett@agcsa.com.au)**

It has been a long, dry summer in Victoria with many days recorded over 40 degrees and minimal rainfall received. Fortunately to my knowledge there were no golf courses affected by the numerous bushfires throughout the state. As I write this report the mornings are turning a little cooler with autumn not far away. Let's hope it brings an earlier autumn break than what it did last year.

Our first meeting for the year was a turf tour at three golf courses on the Mornington Peninsula. We visited Moonah Links, the National and Portsea golf clubs. Thank you to host superintendents **Kyle Wilson, Leigh Yanner** and **Brad Harris** for allowing us to visit their venues. Nuturf was sponsor of the day and gave an insightful presentation on soil agronomy and organic soil conditioners. Thank you Nuturf for your ongoing support of this education day.

The VGCSA has this year implemented a Turf Diploma Scholarship which involves subsidising second year Diploma fees. Candidates were nominated by the relevant TAFE colleges providing the Diploma in Turf Management following the completion of their first year.

Congratulations go to Chisholm TAFE's **Ashley Dobson** from The Dunes Golf Links. Well done also to the other nominees **Tim Hicks** (Wodonga TAFE),



**Scott Mortimer** (Holmesglen TAFE) and **Shaun Gerring** (NMIT) who participated in the process.

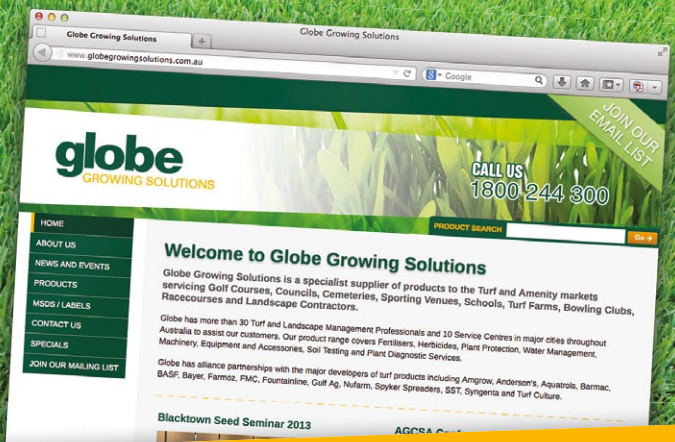
The VGCSA is again fortunate to be able to host its Annual General Meeting at a one of Australia's best golf courses. This year the meeting will be held at Commonwealth Golf Club on Monday 12 May. Thank you to host superintendent **Mark Prosser** and general manager **Peter Parks** for making their golf course and clubhouse available to the VGCSA.

Finally congratulations to superintendents **Ian Todd** (Victoria GC), **Sam Myott** (The Heritage) and their respective crews for successfully presenting their courses for the Australian Women's Open and Victorian PGA Championships in February. Combined with the Men's and Women's Victorian Open at my course, it was great to see Victorian courses in the tournament spotlight again.

**The Heritage hosted the Victorian PGA Championships in early February**

**STEVEN HEWITT**  
PRESIDENT, VGCSA

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**Trevor Strachan's family were on hand to see him collect the Western Australian Golf Industry Recognition Award, the fifth person to receive the state's highest golf honour**



**GCSAWA Graduate of the Year winner Chris Varty (right) with Toro's WA representative Geoff Stephens**



**GCSAWA Superintendent of the Year Nick Price (left) with MacIntosh & Son rep Michael Healy**

I can clearly remember sitting out on my deck, Corona in hand watching the kids in the pool having fun when it started raining. It was a Saturday afternoon back on 30 November 2013 to be exact. Eighty odd days later and still not a drop of rain has hit my golf course in Bunbury and there appears to be none coming our way either. Can someone remind me again why I am a golf course superintendent?

Anyhow, I digress. The GCSAWA has been pretty quiet during summer as we have all been busy keeping our courses alive. We did, however, manage to have a fantastic kids Christmas party in December where we had a special visit from none other than Bad Santa himself (a big thank you to **Josh Walker** for helping out there).

Committeeman **Neil Graham** (Melville Glades GC) has been busy bringing a couple more golf courses online with the Water Wise programme which in conjunction with the Department of Water has been slow but continues to move forward. Our young up and coming committee member **Adam Strachan** has also been busy finalising the 2014 Super Series which will see some changes when it tees off in April.

The GCSAWA Management Challenge has been locked in at The Western Australian Golf Club and a big thank you to superintendent **Idris Evans** for assisting with that. The newest member to the '50 club', **Darren Wilson** (Wembley Golf Complex), has been hard at it building the new GCSAWA website which will be launched in the near future. This looks like a great step forward for the association and with Neil's help Darren will have this completed very soon.

## NIGHT OF NIGHTS

The major highlight recently was the Western Australian Golf Industry Gala Dinner at the magnificent Crown Casino on Friday 21 February. With over 500 of Western Australia's golfing community attending it was always going to be a special night on the

golfing calendar and so it proved for one of our members (more on that in a minute).

The night is held in conjunction with the General Managers Association, Golf WA, the PGA as well as the GCSAWA. Some of this year's winners included Kwinana Golf Club (superintendent **Paul Needham**) which collected Metropolitan Golf Course of the Year, while Kalgoorlie Golf Course/Goldfields Golf Club (superintendent **Fraser Brown**) took out Regional Golf Course of the Year.

This year's GCSAWA McIntosh & Son and Jacobsen Superintendent of the Year Award was hotly contested, as it has been in previous years. The nominations were:

- **Matt Schwarzbach** (Carramar Golf Course),
- **Paul Needham** (Kwinana Golf Club),
- **Brad Anderson** (Sun City Country Club),
- **Nick Price** (The Cut Golf Course) and
- **Trevor Strachan** (Lake Karrinyup Country Club).

After much deliberation, **Nick Price** took out this year's award and will now represent WA at the AGCSA Awards on the Gold Coast later this year.

The Toro Apprentice of the Year Award came down to four young and talented apprentices. **Bryce Pickersgill** (Royal Perth Golf Club), **Scott Burden** (Sanctuary Golf Resort) and **Chris Dane** (Kalgoorlie Golf Course) were all very close, but the 2014 award went the way of **Chris Varty** from Gosnells Golf Club. Chris will now represent the GCSAWA in the final of the AGCSA Graduate of the Year Award. Good luck Chris.

However, it was the end of the night that brought the real highlight for our association and profession. Each year the Western Australian golf industry presents a Recognition Award. This prestigious award is bestowed upon a person in recognition of their enormous contribution to the game of golf in Western Australia and, importantly, their positive impact on and improvement to the golfing industry. This year Lake Karrinyup Country Club course superintendent **Trevor Strachan**, who is highly regarded and respected in all areas of the industry, took out the award.

The golf industry committee thought Trevor was the standout nomination this year and the unanimous vote gave me goose pimples and a sense of pride that one of our own could win the game's highest award in this state. Trevor is the fifth recipient of the Recognition Award.

Congratulations to Trevor and all our 2014 GCSAWA winners. I hope everyone had a great night. Here's looking forward to autumn.

**DES RUSSELL**  
PRESIDENT, GCSAWA



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Mark Jennings & Jim Waring with the Box Hill Golf Clubs Lowara Hydrovar pump set

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- Mark Jennings Superintendent Box Hill Golf Club

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