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# Turfgrass



VOLUME 15.3 MAY-JUN 2013

MANAGEMENT JOURNAL

**Topp of the class**

Twin Waters Golf Club

## Jack's back

The Australian redevelopment

**Profile: Phil Knight**

The nomad returns home

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## COVER

**Twin Waters Golf Club:** The par three 7th at Twin Waters Golf Club. The Sunshine Coast course will play host to the 2013 Toro AGCSA Golf Championships during the 29th Australian Turfgrass Conference.

**Photo:** Gary Lisbon, [golfphotos.com.au](http://golfphotos.com.au)



## LEAD STORY: The course that Jack rebuilt

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Between June 2012 and March 2013, The Australian Golf Club underwent a \$5 million redevelopment to revitalise the course and re-establish it as one of Australia's premier championship golf venues. In conjunction with an intensive war to rid the property of *Poa annua*, all greens, surrounds, tees and bunkers were rebuilt, while the couchgrass fairways received the renovation of their lives. Course superintendent Phil Beal tracks this remarkable project and the race to now get the turf surfaces mature ahead of hosting the 2014 Emirates Australian Open.

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### Contributors to Australian Turfgrass Management Journal Volume 15.3 (May-June 2013)

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# A good outcome?

On Friday 19 April, the NSW Environment Protection Authority (EPA) released the findings of its investigation into The Lakes Golf Club in 2012. The EPA found "inappropriate use of the insecticide Vydate (a non-turf registered chemical used for the control of nematodes) and the disposal of pesticide waste in a manner that may have polluted waters".

In a somewhat surprising outcome, the club and its former superintendent both escaped formal prosecution, with the club committing \$50,000 to local council environmental works, while the former superintendent was issued with two penalty notices totalling \$1150. As well as the 'enforceable undertaking' (see the full EPA press release on page 84), the club has been required to implement "measures to ensure that inappropriate practices cannot recur. These include improvements to accountability, reporting responsibilities and compliance auditing, creating a new reporting mechanism and improved training". It also had to pay the EPA's legal fees.

You can look at the result one of two ways. Either it is a good outcome for both the superintendent and the club and shows perhaps just what a good legal team can achieve, or that the EPA, in light of its past comments about wanting to effect behavioural change in regards to the industry's approach to pesticide use, has missed the boat somewhat.

Despite this particular chapter closing, the overall EPA investigation is far from finished and the organisation is still pursuing many leads relating to quite a substantial number of off-label product purchases, as well as allegations of collusion between users and suppliers to cover up such purchases. It will be interesting to see how that plays out and the concern is that the next club to be thoroughly investigated, which may not have the resources of a club like The Lakes at its disposal, might find itself in some strife.

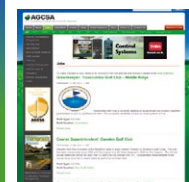
No doubt all these issues will be front and centre among discussions (both formal and informal) at the upcoming 29th Australian Turfgrass Conference and Trade Exhibition and I'm sure the Chemical Use Forum and preceding presentation by Terry Muir on off-label chemical use liability will be (and should be) well attended.

As in previous years, this edition of ATM acts as your official conference guide where we take a look at the upcoming week on the Sunshine Coast. The whole of the Queensland golf industry is going through some challenging times of late, in particular the weather and the resultant decline in revenue, which is forcing the state's superintendents to make serious cutbacks to their operations. You only have to read the article on long-serving and highly respected Twin Waters superintendent Gary Topp (page 14) to get an idea of what is being felt 'on the ground' and his club is by no means the worst. In fact, just as this edition was being put together news came through that Ipswich Golf Club west of Brisbane had gone into voluntary administration.

To end on a sad note, the last couple of months have seen the deaths of two turf industry practitioners – Bradley Kheirallah and Stewart Grimmer. Twenty-one-year-old Bradley, a promising apprentice greenkeeper at Kogarah Golf Club in Sydney, lost his long battle with Non-Hodgkin Lymphoma in February, while Stewart, a Melbourne-based turf client manager with Globe Australia, died suddenly after suffering a brain aneurysm in April. Although at different stages of their careers within the turf industry, both Bradley and Stewart were highly regarded by their industry colleagues and will be greatly missed. I'm sure a glass or two will be raised in remembrance at Twin Waters. Enjoy the read...



*Brett Robinson*  
**Brett Robinson,**  
Editor



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# Turf conference important for whole of industry



There is a great deal of activity in the AGCSA office at present with the focus on preparations for the upcoming 29th Australian Turfgrass Conference and Trade Exhibition. The event, to be staged at Twin Waters on the Sunshine Coast, is fast approaching (23-28 June) and as I write this report registrations are rolling in with early indications again pointing to the smaller regional format being very popular.

The conference provides an important opportunity for members of the industry to gather on an annual basis to share ideas and improve their knowledge base. It is also a highly important vehicle for associations and turf industry bodies, such as the AGCSA, Sports Turf Association, the National Turf Education Working Group and the Society of Australian Golf Course Architects (SAGCA), to meet and discuss issues.

This year I am pleased to advise that the Australian Golf Industry Council (AGIC) will also be meeting during the Twin Waters conference, which again highlights the importance the event has on the industry as a whole. For those not aware, the AGIC is made up of representatives from the major golfing organisations in Australia including the AGCSA, Golf Australia, the Professional Golfers Association of Australia, Australian Ladies Professional Golf, Golf Management Australia, Australian Sporting Goods Association and SAGCA.

The schedule for Twin Waters has been released for some time (see the dedicated conference guide in the middle of this edition for a full rundown on the week's education programme and events) and I believe the mix of speakers will provide a great learning outcome for all delegates.

We are fortunate to have Michigan State University's Dr Thom Nikolai returning to facilitate

one of the workshops which the AGCSA is conducting in partnership with Jacobsen. To have an international speaker of this calibre presenting in the less formal setting of the smaller regional conference will be one of the highlights of the week. Copies of Thom's book *The Superintendent's Guide to Controlling Putting Green Speed* will be available for purchase during the event and I am sure if asked he would gladly sign a copy to give you a lasting memento of the week.

“Whether you agree or disagree with the process or outcome, one thing that should not be underestimated is the untold damage this (EPA investigation) has had not only on the club and the individual involved, but the industry as a whole.”

The annual conference also enables the trade to gather and the two-day trade exhibition planned for Twin Waters will again be one of the major focal points of the week. This year's event sold out in record time and will provide delegates with a great opportunity to not only catch up with what is new in the industry, but also show support for those companies that back the industry.



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We work in a wonderful industry which is supported by passionate members of the trade and this event is one way that we can encourage their continued participation. It is vital that when you make purchasing decisions you consider those that support the industry. If you are not attending the conference but are based in southeast Queensland, I strongly encourage you to get a group together and make the trip up to Twin Waters to have a look, see what is new in the industry and catch up with friends and colleagues.

While on the topic of conferences, planning for the 30th Australian Turfgrass Conference, scheduled for the Gold Coast starting Sunday 22 June 2014, is well underway. Selecting speakers for these events is a critical process and we place a great deal of emphasis on what is detailed in the conference survey which is circulated to all delegates after each conference.

While surveys are a good indicator of current thoughts, your input into speaker selection or the general scheduling of the conference is vital. If you have any ideas for future events please don't hesitate to contact myself or AGCSA events and education manager Simone Staples.

## NSW EPA RULING

To finish, most would have heard that the NSW EPA has handed down the results of its investigation into one of Sydney's leading golf clubs (see page 84 for the full EPA release). With the EPA and the club entering into an 'enforceable undertaking', it brings some closure to what has been a long and drawn out process.

I have received many interesting comments from a wide cross section of the turf industry about the result of this investigation. I will not be drawn into making comment on what was a lengthy and thorough investigation, but I will take the opportunity to make a couple of observations.

Most importantly, I hope that this event has provided everyone working within the turf industry the opportunity to seriously look at what they are doing in the workplace and ensure that they are complying with the laws associated with their positions. I am sure as a result of this case that the turf industry will see a series of ongoing audits and spot checks over the next few years to ensure it is complying with the law.

I also hope that this is the last time the industry has to go through such an investigation. Whether you agree or disagree with the process or the outcome, one thing that should not be underestimated is the untold damage that this type of event has had not only on the club and the individual involved, but the industry as a whole.

Please feel free to contact me on 0418 593 072 or peter@agcsa.com.au should you have any issue or suggestions; feedback on the AGCSA and its activities is always welcomed. I look forward to catching up with you at Twin Waters. 🍷



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# Jack rebuilt

Between June 2012 and March 2013, The Australian Golf Club in Sydney underwent a \$5 million redevelopment the scale of which rivalled its 1977 renaissance at the hands of Jack Nicklaus. In conjunction with an intensive battle against the old enemy *Poa annua*, the end result is a revitalised layout which will host the 2014 Emirates Australian Open. Course superintendent Phil Beal tracks this remarkable project which saw the club strengthen its already close ties with Nicklaus and re-establish its status as one of Australia's premier championship golf venues.



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The Australian Golf Club holds a unique place in the history of Australian golf. The oldest golf club still in existence in Australia, formed in 1882, it hosted the very first Australian Open Championship in 1904 and over the years has hosted the tournament a total of 17 times, more than any other club in the country.

The mid-to-late 1970s proved to be a defining period for The Australian. For a four year stretch between 1975 and 1978 it hosted consecutive Australian Opens, with golf's man of the moment Jack Nicklaus winning three of those, his last coming in 1978 which made for a total of six Australian Open titles.

However, it was between the 1976 and 1977 Australian Opens when Nicklaus left his biggest mark on the club. With the backing of influential member and media magnate Kerry Packer, Nicklaus was seconded by the club to redesign the course and in a 10 month period between tournaments dramatically altered the Kensington layout.

Nicklaus' changes were considered somewhat radical for a club steeped in history and tradition. The two nines were swapped, three hectares of lakes were added, 400 trees transplanted, while all greens, tees, fairways and bunkers were subject to Nicklaus' fastidious course design eye.

In an article previewing that year's Australian Open which appeared in the 16 November 1977 edition of The Australian Women's Weekly of all magazines, writer Nicholas Fox eloquently described the changes Nicklaus had made:

"He took hectares of The Australian and remodelled them as a child might play with clay. He bulldozed away hills, gouged out lakes, pressed his thumb into fairways and squeezed up spectator mounds along the borders. He moulded greens of Pentcross (sic), a special type of grass, with the precision and care of a sculptor."

Nicklaus' bold alterations would remain pretty much untouched until 1999 when the tops of the greens were removed and re-sown with Penn A1. At the same time the greenside bunkers were reformed under the auspices of Nicklaus Design. In 2002, similar work was carried out on the fairway bunkers and at the same time the fairways, which were then a mix of different couchgrasses, were overplanted with Santa Ana couchgrass. All those changes, along with six new championship tees, were completed ahead of the 2004 Australian Open, with the course hosting its last Australian Open in 2007.

## BITING THE BULLET

When I arrived as the newly appointed course





PHOTO: HEATH FLEMING, FLEMING GOLF

**The Australian's new-look 10th hole which was part of the club's \$5 million course redevelopment. The new-look layout will be put to the ultimate test when it hosts the 2014 Emirates Australian Open**

superintendent in September 2010, the golf course was in need of some attention. The greens were infested with *Poa annua*, the tees were small and uneven, bunkers weren't visible from the tees or landing areas, trees were overgrown across the property and there were seven different types of cart path material. Weed control was an issue throughout the site, in particular *Poa annua*.

A month into my tenure I was asked to assess the quality of the greens and report my findings to the club's Board. From that, three proposals were put forward under the premise that a weed eradication programme needed to be implemented across the entire course before any of the work could be considered. The three options included:

- Undertaking major renovations to the greens including vertidrainage, hollow coring and heavy topdressing until compaction problems were resolved. (*Poa* contamination would be addressed by the use of chemicals, but it was stressed this would take time and the results would be variable with possible loss of turf.);
- Remove the tops of the greens and re-sow them; or
- A full rebuild of the greens and surrounds.

The Board ultimately decided to opt for a full reconstruction and given past history Nicklaus



Design was approached to redesign the greens, bunkers and surrounds as well as remedy a number of other course issues. Chris Cochran from Nicklaus Design visited the course in November 2010 and over the next six months finalised a design.

In addition to rebuilding the greens complexes, the initial scope of works included the following:

- Realignment of holes 9 and 14 (which run parallel to Southern Cross Drive) to the left to prevent balls from leaving the property;
- Construction of new tees on holes 3, 4 and 14;
- Addition of a new bunker complex between the 10th and 18th fairways; and
- Installation of a synthetic liner in the irrigation lake between the 3rd and 4th holes which was leaking.

**Members of The Australian crew (from left) Steve Gooding, Pete Blain, Jake Smith, Greg Judd, Jarrad Sheather, Dave Smith, Wes Maher, Karl Gorissen, Dean Hardman, Liam McIver, Brad Sim, Dean Criticos, Gary Clark with the legend himself, Jack Nicklaus**





**The 7th green during and after reconstruction. The 7th received major reworking, with the green complex dropped by 1.5m to not only provide a better look through the green but also open up the lake on the right hand side. A bail out area was also incorporated to the left of the green**



In September 2011 the members voted on the redesign with a resounding 95 per cent in favour. Interestingly, when Nicklaus' original redesign was voted on back in 1976, only 60 per cent of the membership voted in favour. Timelines and budgets had been included in the information provided to the members and it was decided that the project would be conducted over a nine month period with a temporary course in play at all times.

## WAGING WAR

As mentioned, the key to the success of any works revolved around an intensive weed eradication programme which ultimately determined the timing of the course upgrade.

Over a 15 month period, starting from November 2010, a substantial budget was made available to purchase and apply post and pre-emergent herbicides. The initial success was varied, but after six months the weeds became weaker and with good soil conditioning the couchgrass grew stronger. (Soil tests had initially showed that calcium and magnesium levels were extremely low, so a budget of \$60,000 was set to allow three applications of lime at 8kg/100m<sup>2</sup> and Kieserite at 4kg/ha across the fairways, roughs and tees.)

The weed eradication regimes in the autumn and winter of 2011 were very aggressive. The pre-emergent Barricade was applied in February at 2L/ha along with Monument (post-emergent) at 300ml/ha. Due to high rainfall through autumn, Barricade was applied three months later at 2L/ha to ensure *Poa* germination was limited. In the winter, the roughs were sprayed with Roundup at 300ml/ha. This cleaned up the *Poa* and highlighted the kikuyu which was sprayed again with Roundup. Oniongrass was also a problem, but after three applications of Destiny through this period the weed was controlled.

The treatments were intensive, but the Board remained steadfast that the golf course be clean of weeds prior to the start of any construction work. By the spring of 2011 the success of the programmes was evident. I believe the pre-emergents were the key and by January 2012 I reported to the Board that the control of weeds was good enough to go ahead with the course upgrade.

## MOVING DIRT

Following long deliberation, Sydney-based golf course construction firm Flemming Golf was chosen to undertake the construction works. They had a nine month window in which to complete the works and in order to ensure that nothing was overlooked the club decided to have a Nicklaus Design consultant on site throughout the job.

Sean Quinn from Nicklaus Design joined the project team in May 2012 and was on site for seven months. His expertise in implementing the design and his attention to detail was a major factor in the eventual success of the upgrade. Any changes required were dealt with immediately which kept delays to a minimum. Flemming Golf, led by Heath and Kirk Flemming, was up for the challenge and delivered according to expectation.

The project started on 1 June 2012. It rained for the first six weeks (we recorded a total of 213mm during that time), but with the golf course wholly on sand, delays were minimal.

One of the initial and critical components of the project was the installation of a new synthetic liner in the lake between the 3rd and 4th holes. The lining was a major part of the works as the original depth of the lake was in the water table. About 1500m<sup>3</sup> of fill was used to raise the bottom of the lake and when it finally stopped raining, the lake lining was successfully completed. By mid-August water was being pumped back into the new lake.

**The 10th during the reconstruction (left) and grow-in (right). The most significant change to this hole has been the addition of a striking new bunker complex which resides between the 10th and 18th fairways (see main photo, page 6-7 for the finished look)**







## GREENS

The key focus of the reconstruction from the outset was the greens and from the practice putting green through to the 18th, all received a significant face-lift in terms of their design, functionality and playability. The new surfaces were designed to drain in all directions (previously they drained from back to front) and numerous pins are now available on all greens. The green surfaces are also more visible from the fairways, allowing the golfer to see the bottom of the pin in most instances.

The improvements around the greens have been dramatic too. Bunkers are no longer just holes in the ground but major features of the holes and are clearly visible from the tees and landing areas. The surrounds also have more bail out areas which provides increased shot variety around the greens.

The new greens were built to full USGA specifications. Push-up greens were an initial

consideration, but after testing the natural sand on site it was decided the greens would be too varied and would not be consistent.

Megaflo drains were installed and although costly proved a good decision given the variations found in the ground conditions across the site. The quality of the greens build was uncompromising from both a design and construction point of view. The sub-base was mirrored consistently across all greens with little or no variation in depths.

The greens needed to be seeded by 1 October 2012 in order to get full coverage before summer. This gave 18 weeks to strip, shape, irrigate and build 18 greens. The first nine were seeded on 11 September and the second nine on 6 October (a drop seeder was used and seed tracked in with a SandPro). After significant research, it was decided to stick to a tried and tested bentgrass variety on the greens, with a mix of Penn A1/A4 ultimately chosen.

**The 1st green complex during and after reconstruction. One of the key reasons behind the redevelopment was to improve the greens complexes from both a design and agronomic perspective. The new greens are all USGA spec and were seeded with a Penn A1/A4 mix**



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◀ **The 9th hole was realigned to the left due to balls being hit out onto Southern Cross Drive**

The grow-in was a great success mainly due to the diligence of the staff. Irrigation on all greens was done manually, with a staff member switching the sprinkler on and watching the rotation to ensure the head did not stick and that each green received exactly the correct amount of water. Every green and every sprinkler was treated this way until full coverage was achieved. Wind was taken into account at all times and hand watering was done if the surface was not fully wet.

Full coverage was achieved across all greens by the end of December with just a small amount of pythium needing control.

## TEES

The redesign had initially called for just three sets of tees to be upgraded, but this quickly changed as the project progressed. Once the first set of tees had been completed, the Board recognised the difference in quality between the old and new and

decided it was the opportune time to redo those that needed attention. While this additional work put a considerable strain on project timelines, the decision to do almost all of the tees was totally justified and the course now sets up beautifully.

The new tees are all push up and were turfed with Grand Prix couch, a change from the existing Santa Ana couch. The vision for the tees was to have a different surface from the surrounds. Grand Prix will have better wear tolerance and not produce as much seed head as the Santa Ana and will provide a nice contrast. The tee surfaces need some more time to mature but with another growing season they will be outstanding.

## BUNKERS AND CART PATHS

Having completed all the greenside bunkers during the greens component of the project, there was a general thinking that the fairway bunkers were now substandard by comparison. The bunkers were tired, drainage was poor and some were in the wrong place. As with the tees, the Board made the call to include an upgrade to all fairway bunkers.

It proved to be a race against time to get them completed. With a reopening date of 9 March, as late as 15 January there was no sand in any of the bunkers and shaping was required on at least a dozen fairway bunkers. In six weeks Flemming Golf installed 2500 tonnes of sand and although sod was being laid around some areas the week before, all bunkers were in place come opening day.

As mentioned earlier, the existing cart paths were in a poor state and comprised a range of materials. Some 6000m<sup>2</sup> of concrete was laid with kerb and pull outs for carts and the end result is consistent and has minimal impact visually.

The club also invested in new golf carts with the Visage GPS system installed. This allows the club to control where the carts can and can't go and directs the golfers to the cart paths, keeping them away from greens, thus helping to reduce wear.

## JACK'S BACK

Jack Nicklaus visited the site on three occasions in the lead-up to and during the upgrade. In February 2011 he had his first look at the course for many years and spent a day with the management and Board discussing what he felt was needed on the golf course and ascertaining the club's brief.

This visit was not publicised and the look on members' faces as Jack drove past them was priceless. From the young pennant players through to retired members playing their social round, each one of them would do a double take as the world's greatest golfer drove past, waved and went about his course inspection. It was indeed a privilege and something I will remember for a long time.

As well as the realignment to holes 9 and 14, significant changes were also made to holes 7, 10 and 18. Hole 7 is a par four with water behind and to the right of the green. Nicklaus decided that the

## THE REAL BEAL

Given the mammoth undertaking at The Australian, the club was fortunate that it could call upon the extensive experience of course superintendent Phil Beal to oversee one of the most significant projects in the club's proud history.

Hailing from the UK, Beal trained as a greenkeeper and worked on golf courses in the south east of England, as well as spending six years in Europe working in golf course construction.

His first superintendent posting was at the highly regarded Bearwood Lakes Golf Club in Berkshire and after constructing the course stayed on as course manager for 10 years. It was during his time there that Beal got to know Troon Golf's head of agronomy Jeff Spangler, a man whom he describes as a great mentor.

In 2005, Beal immigrated with his Australian wife Sheena to Sydney and through his connections at Troon an opportunity came about at the newly constructed Twin Creeks Golf Club in the west of Sydney.

Arriving with the Graham Marsh-designed course nearing the end of construction, Beal was thrown in the deep end, seeing through the remaining grow-in phase and eventual maintenance of the new course. It proved to be a massive learning curve for a Pommie greenkeeper, dealing with warm-season fairways and maintaining cool-season bentgrass greens during summers which soared to 40°C on a regular basis.

After five years at Twin Creeks, in September 2010 Beal was appointed as The Australian Golf Club's new course superintendent.



**One for the mantelpiece - Phil Beal with golfing legend Jack Nicklaus**





whole area should be dropped by 1.5 metres which not only gave a better look through the green but also opened up the lake on the right hand side. Before the changes the hole was very tough and unfair, but with the addition of a bail out area to the left it still remains tough but gives the higher handicapper more of a chance to score well.

Nicklaus' second visit came during the early part of the construction and he spent a whole day on course making changes where he felt necessary. Some of those were significant and required extra money to complete, but the expense and effort was fully justified given the end result. It was impressive to see how much input he had that day and the time he spent with all involved in the project to ensure the product was correct.

The last visit Nicklaus made was for the opening. During this brief visit he played nine holes with a substantial gallery of members and guests following

him, was involved in three functions in 24 hours, as well as numerous media interviews. It was during this visit that Nicklaus was bestowed honorary membership of the club. As he was leaving and saying his farewells you could see how much effort he had made and how tired he was.

Being involved with Jack Nicklaus was certainly a highlight of my career. He is a very professional, congenial and dedicated man who has an extraordinary eye for detail when it comes to golf course design. When you asked him a question he made sure that he understood it before he answered and as such would often make you repeat the question, which could be quite daunting.

He was very pedantic about bunker design. The presentation of the bunkers was discussed after he played during the opening and he said that while he liked the broomed faces he thought the rakes we used made the sand too soft.

**The 14th hole during and after reconstruction. Like the 9th, the 14th was also realigned to the left to remedy safety issues**

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## AUSTRALIAN OPEN HOST VENUES

Golf Club	Total
The Australian	17
Royal Melbourne	16
Royal Sydney	13
Royal Adelaide	9
Kingston Heath	7
Metropolitan	7
The Lakes	6
Kooyonga	5

It was quite a surreal feeling on the 18th green with hundreds of people asking for a photograph with him to all of a sudden hear Jack yelling "Where's Phil?" and then "Hey Phil! Come over here and have a picture taken with me and the guys!" Memorable times indeed!

### OPEN FOCUS

At the celebratory lunch that followed, Nicklaus announced, on behalf of Golf Australia, that The Australian had been confirmed as host of the 2014 Emirates Australian Open. December 2014 is now the target date to put the course on show.

The grow-in is still far from complete and it will take another growing season for the course to mature. There are still bare areas on fairways and the tie-in areas from the greens to the surrounds need topdressing to give a seamless transition to the couch. The greens themselves are fine, but they need another season to mature to ensure they are firm enough for tournament golf.

One of our key priorities going forward is keeping the course free of *Poa annua* and kikuyu and to achieve this we need to take a holistic approach. Our control programmes are split between roughs which are sprayed every 12 weeks alternating between the pre-emergents Barricade (2L/ha) and Embargo (5L/ha) and the fairways, tees and green surrounds which are sprayed with Dimension (1.5L/ha) or Embargo (2.5L/ha) every six weeks.

Maintenance operations haven't changed too much as a result of the new changes, although we have increased the amount of bunkers being raked by hand. The labour on these areas has increased but not dramatically and it is surprising how quickly bunkers can be raked. The sand is very good and

the faces compact well, so the area of raking is quite small. Our aim is to get the ball to roll from the faces into the centre of the bunkers.

Another important aspect in the coming months/years will be the course landscaping. The club has contracted GCH Design which, over the past 18 months, has been looking at concepts for the course to provide a more consistent look and feel. Some parts of the course will have more colour with the use of crepe myrtle, carpet rose and Bougainvillea. This autumn will also see the planting of 60 semi-mature trees in strategic areas. The new landscape design has been implemented to date on holes 1 and 2 as a trial.

### ACKNOWLEDGEMENTS

It is very difficult to acknowledge everyone involved in such a major project. My staff stepped up to the challenge and, by their own admission, learnt about so many aspects of golf course construction.

My assistant Brad Sim was a great help to me before and during the upgrade and his appointment as the course superintendent at Cape Kidnappers in New Zealand in late 2012 was well deserved. Dave Smith took over the 2IC role upon Brad's departure with passion and commitment and was a massive support for the remainder of the project.

This project would never have been contemplated without the input of The Australian Golf Club chief executive officer Rob Selley. Rob is the best in the business and his vision and desire to improve the club in every area is inspiring. Likewise, the design crew and the contractors mentioned earlier in the article were outstanding. The project was a major success on every front, delivered on time and on budget with uncompromising standards. 🏌️

## THE AUSTRALIAN FAIRWAYS GET AN EXTREME MAKEOVER

While the greens, surrounds, tees and bunkers all received substantial tweaking as part of the redevelopment, The Australian's fairways have also been treated to the renovation of their lives.

The Santa Ana couchgrass had accumulated a significant thatch layer over the years which inhibited proper watering, while disease, particularly ERI, was an increasing problem through summer and early autumn. Scarifying and hollow coring was proving an issue too with the thatch layer impenetrable in parts.

The decision was made to take the top 25mm off all fairways not being disturbed by the reconstruction works. The process began in October 2012 on the 3rd and 13th fairways and involved stripping the top off with a Koro field topmaker followed by a double scarify with a Graden and then a hollow core.

Those two fairways were slow to come back so course superintendent Phil Beal decided to ease off on the others and in the end the topmaking was completed with just a double scarify. In the New Year all areas were hollow cored twice with the cores recycled and used as topdressing. "The topmaking was an amazing exercise," says Beal. "Three 2.5 tonne tipper trucks worked all day with the topmaker and on average did 100 trips each. The amount of thatch was incredible and we buried it throughout the site.

"Seven hectares were treated and the recovery and improvement is outstanding – the 3rd and 13th fairways are the best surfaces! This was far from general maintenance and it would be impossible to undertake such aggressive renovations during normal operations due to the amount of material produced.

"The new fairways are very young and topdressing is going to be vital during next season to bring them up to standard for the 2014 Australian Open. It will also be a learning curve over the next year to see how much irrigation is required and how hard we can renovate in December."



The top 25mm of The Australian's 6th fairway is shaved off with a Koro field topmaker



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Twin Waters Golf Club plays host to the 2013 Toro AGCSA Golf Championships in June, the first time since 2007 that the event will be contested on couchgrass greens. Pictured is the long par four 3rd

# Topp class

## Twin Waters

The 2013 Toro AGCSA Golf Championships will be contested at one of the Sunshine Coast's pre-eminent layouts – Twin Waters Golf Club. ATM editor Brett Robinson catches up with highly respected superintendent Gary Topp who has spent the past 18 years establishing a reputation for presenting some of the finest couchgrass surfaces in the state.

As one of the turf industry's more seasoned campaigners, 59-year-old Twin Waters Golf Club course superintendent Gary Topp hasn't done too badly for himself. The carpet laying industry's loss back in the 1970s was very much the turf industry's gain and in a career which has now spanned more than four decades, Topp has earned a reputation for providing pristine carpet-like surfaces of 328 and Wintergreen as opposed to the loop pile berbers and sisals he once worked with.

A quick canvass of Topp's contemporaries on the Sunshine Coast and you quickly get an appreciation of the stature that he has unwittingly elevated himself to over the years, first as superintendent at Headland Golf Club during the 1980s and then during the past 18 years while in charge at Twin Waters.

Comments like "he commands loyalty through his actions", "principled, insightful, supportive" or, quite simply, "his couchgrass surfaces are the best in Queensland" say a lot about a bloke who, although being extremely modest about his abilities, is widely regarded by many as one of the best operators in the business.

Modesty aside, however, it's the fact that Topp can call on such an extensive knowledge base and range of skills that has proved critical for his club in recent times. Twin Waters, like most golf clubs in Queensland, has been battling through one of its most challenging operational periods, the result of a bad run of weather and a downturn in golfing numbers and local business in general. It all means that, more than ever before, Topp has to call on that level of expertise in order to maintain the very high benchmarks he has set for himself and his course.

### RAPID RISE

Born in Gatton, almost halfway between Toowoomba and Brisbane, Topp spent the first 20 years of his life in Toowoomba, eventually joining the family's carpet laying business after finishing school. In 1973 the family moved to the Sunshine Coast where Topp would go out on his own as a contract carpet layer, but with the building industry declining work became scarce.

A keen golfer since the age of 11, Topp at the time was playing regularly at Headland Golf Club and got to know one of the ground staff, Kerry Molloy. Not long married and in need of another job, Topp, with the help of Molloy, managed to get a position on the Headland maintenance crew. That was 1977.

By 1980 Topp had gained his greenkeeping ticket through Queensland Technical College and no sooner had the ink dried he was elevated to course superintendent. During a 10-year tenure Topp would oversee the conversion of Headland's greens from Queensland blue couch to 328 and constructed six new greens in conjunction with Ross Watson and David Burrup.

After resigning from Headland, in July 1990 Topp moved north of the South Maroochy River to join former Sanctuary Cove superintendent Wayne Miller as his assistant at the much-heralded Twin Waters course development. Although dropping back to an assistant's role, the chance to be involved in the construction of a new links-style Thomson-Wolveridge course was a real lure and despite some initial financial issues that plagued the development, by the time Topp arrived it was back on track and expectations were high.





PHOTOS: GARY LISBON

Topp was charged with grassing and growing in the resort course and over a mammoth five week period from August 1990 the entire course was planted with Wintergreen (fairways), Greenlees Park (roughs) and 328 (greens). By December the front nine was in play with the back nine following in late January 1991.

"It was an amazing construction job," reflects Topp on his early days at Twin Waters. "The site on which the course was built was a melaleuca swamp flood plain with a 1000mm-1200mm profile of heavy sandy loam and decaying matter. That was stripped off where the fairways were to be and pushed to the sides to create the mounding in the roughs.

"Scrapers that were being used to construct the canals in the residential and resort area were then brought in to build up the fairways with the local sand that was underneath. Sand was then brought across from the canal excavation and used



**The Twin Waters maintenance team headed by Gary Topp (right)**

to construct all the greens which were straight push-ups. It was an incredible process.

"It was a real race to get the first nine open. Shortly after planting the Wintergreen sprigs which were broadcast using a 3 tonne spreader, we copped some very strong winds. Wintergreen tends to clump and then spread out, so during the early stages the wind would erode the sand in between and we ended up with some very big ruts. We had to bring in a 20 tonne vibrating roller to smooth the fairways out prior to opening."

### CHALLENGING TIMES

Four years after opening, Miller left for Lake Karrinyup Country Club in Perth and on his recommendation Topp was elevated to course superintendent, a role he has now held for the past 18 years. Although extremely humble about his achievements over that period, Topp has managed to consistently maintain a high level of presentation despite a number of challenges.

CONTINUED ON PAGE 17

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Twin Waters course superintendent Gary Topp



Twin Waters' opening hole

The 16th at Twin Waters

## TOPP TURF – TWIN WATERS GOLF CLUB AT A GLANCE

**Course superintendent:** Gary Topp (59).

**Course staff:** Garry McClymont (assistant), Michael Styles (irrigation tech), Jeff Reeves and David Simpson (greenkeepers), Greg Salmon, Andrew Mitchell and Warwick Lawlor (groundsmen), Matt Benham (groundsman/casual – 24hrs) and Patrick Chatenay (golf cart mechanic – 18hrs).

**Course budget:** \$1.1 million (incl. wages).

**Course specs:** 18 holes, 6183m, 52ha of managed turf. 328 (Tifgreen) greens (3-4mm); Wintergreen tees (8-9mm) and fairways (10-12mm); Greenlees Park roughs (60mm).

**Annual rounds and major events:** 35,000. Holden Scramble national final venue 15 times over a 21 year period. Hosted the Jack Newton Celebrity Classic from 1992-2004.

**Course machinery:** 4 x Toro 3250Ds (two greens, two tees); 2 x Toro 5510s (fairways); Toro 4700D and Kubota outfront (roughs); 3 x Kubota tractors; Tru Turf roller; Toro 1298 fairway corer and Toro 648 pedestrian corer; Toro Workman sprayer, Sylvan 2000 litre and 300 litre tractor mounted tank sprayer; Turf Mach sweeper; 3 x Toro Workman utilities, electric ClubCar and four ClubCar golf carts. Also maintain a golf cart fleet of 75.

**Water source:** "We use recycled effluent which comes from two main sources. The club spent \$1 million to run a direct line from the treatment plant at Fisherman's Rd, Maroochydore (Class A) and we have another line (Class B) from a treatment plant at Finland Rd, Pacific Paradise. We mainly use the Finland Rd source because of the cost (we don't pay for pumping) but there is talk it will close this year.

"The issue with the supply from Maroochydore is that to achieve Class A it needs to be stored in a large tank before it can be released and because of that they can't supply us with the amounts we require (up to 3ML a day). With the possible closure of the Finland Rd supply we have been told that the Fisherman's Rd plant will be upgraded."

**Irrigation system:** "We have the original Hardie Micromaster 3000 electric hydraulic system that was installed during construction – most wouldn't even remember it! – with 1300 Hardie 250 sprinklers. You can't get bits for it any more so our irrigation tech earns his keep. It's still hanging in there, just."

**Renovations:** "We carry out two major renovations each year – October and February – but that will change slightly this year due to the Holden Scramble being earlier. In October we renovate greens with solid tines (anywhere from ½" to ¾" depending on the weather) and scarify, add amendments and topdress. In February we normally hollow tine and scarify, but this year because of the weather we went in with solid tines. We have greens groomers which we run at about -3mm up and back two times depending on thatch levels. We also solid tine monthly (6mm) and lightly dust between renos.

"Tees are scarified in October and February as well (-5mm), cored and topdressed. Fairways are cored a minimum twice a year (usually hollows in September and solids in February) if the weather allows. Because this February was so wet we didn't get our scarifying in which was a pity so we just went in with 19mm solid tines."

**Disease pressures:** "The biggest issues we have are pythium and ERI which is understandable given the weather conditions we have been getting. Our seven 'problem greens' can be in water for up to a week sometimes, so disease is inevitable and has been much more prevalent in the last three years.

"On top of a preventative fungicide programme, we aerify monthly to keep the turf as healthy as possible. We undertake leaf tissue analysis bi-monthly to make sure that nutrient levels are correct. We put out regular applications of biological products (kelp-based and liquid vermicasts) to maintain soil health which we have done since 2000 onwards and have noticed much improvement."





## CONTINUED FROM PAGE 15

The course's ageing infrastructure, such as the irrigation system, along with drainage issues on many greens which hark back to their initial construction, have over the years gradually conspired to make managing the course a lot more difficult, not to mention the constant battle with Queensland's fickle elements.

All greens, as mentioned, were initially push-ups constructed with what Topp sardonically describes as the 'best sand' from the residential canal excavations. Unfortunately quality control was inconsistent during the importing process and as a result a number of the greens profiles contained a high percentage of silt which soon created major drainage issues.

In 1998, Topp convinced the then general manager to reconstruct six of the worst greens – 3, 4, 5, 9, 10 and 16. With the help of Doug Robinson, the top 400mm-500mm of each green was removed and replaced with a USGA-spec sand and returfed. The plan was to do six greens each year over a three year period, but such was the downtime and loss of income that resulted from those works, the next general manager axed any plans for doing the remainder.

A change of ownership in 2005, which saw the course spilt from the Twin Waters Resort and bought up by Japanese doctor Tsutomu Yamaji, didn't



change the situation either so Topp has been left to juggle six USGA greens and 12 original push-ups.

Of those push-ups, seven of them – the 12th in particular – are a real battle and their shortcomings have been more and more evident given the horrid weather Queensland has endured in recent years. As the table on page 18 shows, the past three years have seen annual rainfall totals well above 2000mm and already to the end of April 2013 the course has copped in excess of 1300mm.

"We've been smashed the last three years," says Topp. "In good weather conditions the push-ups are relatively easy to manage and the 328 presents a very good surface, but we find the USGA spec greens tend to drop out a little. When we reconstructed them we didn't incorporate any

**Moundings in the green surrounds and roughs are a prominent feature at Twin Waters. Pictured is the 13th green**



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◀ **The 12th green is one of 12 remaining push-up greens which are susceptible to flooding in wet weather due to a high percentage of silt in the profiles, a hangover from their original construction**

amendments into the growing medium except for some Dynamic Lifter, so that has caused a few problems and as a result they need more inputs.

"But when it's wet, I've got seven push-ups that will go under almost straight away and stay under for as long as it's wet. It becomes a drama when you get to the stage where we have been recently where there has simply been no let up. In the first four months of 2013 we have had 58 days where it has rained – that's nearly one in two."

### HARD GIG

While the elements have made maintaining quality turf a struggle, the weather has also hit the club's finances, a fact mirrored across virtually all Queensland clubs at present. While Topp admits Twin Waters is by no means the worst affected, the resultant drop in golfers coming through the gates has forced some serious adjustments to what is an already efficient and lean maintenance operation.

Last year was particularly tough. The Christmas/New Year period of 2011/2012 was a write off due to rain and the bad weather persisted through until the end of June. Topp's figures show that for the seven months from 1 December 2011 to 30 June 2012, the course copped 1998mm (including 582mm in March alone). With course income virtually non-existent, the solution was inevitable – stop spending.

For periods last year the only thing Topp could spend money on was fuel to keep his machines running. While the absolute necessities

were covered, other areas of course expenditure, such as the application of fertilisers on fairways, biological products on greens and maintenance of roughs, were either cut back or eliminated. Unless absolutely required, machinery that broke down was left unrepaired and when Topp lost a staff member he simply wasn't replaced.

"I have always tried to produce the best product that I can with the resources available, but it is definitely becoming harder," says Topp. "The past three years have knocked us about badly and it has been frustrating that we haven't been able to maintain the standard of presentation that we had say 10 years ago.

"It's probably been the most challenging time I've had here as superintendent. As the years have gone on I'm becoming very much more hands-on because I'm filling the gaps that have been left by the reduced staff levels.

"There are a lot of clubs struggling out there and it's very sad to see. Business is really tough on the Sunshine Coast at the moment as well and combined with the weather it has meant we have seen a significant drop in numbers and future bookings in terms of functions/ weddings etc... And it doesn't look like improving after the start we've had to this year. At least we are buying product at the moment, unlike some clubs, but you just don't know how long that will last for."

Despite some tough times, Topp has been fortunate to call upon the commitment of his crew to keep the course looking at its best given the circumstances. "A great bunch of guys", the average age of Topp's crew is 40-odd and with such experience and the fact they know the course backwards (irrigation technician Michael Styles, for instance, installed the old Hardie Micromaster system back when the course was constructed), it certainly makes Topp's job a lot easier.

### SUPER SHOWCASE

But what would make Topp's job a lot less stressful right now is some dry weather. Not only would a little reprieve from Mother Nature get some much needed traffic through the gates, it would also help Topp to showcase his course to his superintendent colleagues who will converge on Twin Waters for the 2013 Toro AGCSA Golf Championships on 23 June.

As far as advice on playing Twin Waters goes, Topp isn't giving too many secrets away: "If you can tell me what the weather will be doing at the time, I'll tell you what the course will be like," he laughs. "It'll be a chip and run situation around the greens – that's the way the course was designed – but if it has been a bit wet they'll be able to attack the pins more aggressively.

"The 8th hole is one of the toughest driving holes while on the back nine the 202m 17th is the best par three on the course. It requires a long shot into an undulating green that is guarded by bunkers. If you two putt there, you are doing very well." 🏌️

**TABLE 1: TWIN WATERS GOLF CLUB RAINFALL STATISTICS**

Year	Annual total Rain fall	Days of rain (p/a)	Monthly maximum	Monthly minimum
2013 <sup>1</sup>	1330mm	62	Jan (405mm)	n/a
2012	2056mm	108	Mar (582mm)	Aug (0mm)
2011	2329mm	106	Jan (643mm)	Sep (35.5mm)
2010	2291mm	147	Dec (629mm)	Jun (31.5mm)
2009	1836mm	103	May (368mm)	Jul/Aug (6.5mm)
2008	1943mm	114	Jan (313mm)	Aug (2.5mm)
2007	1972mm	115	Aug (482mm)	Jul (20mm)
2002-2006 <sup>2</sup>	1455mm	93	Dec (210mm)	Jul (44.7mm)
2001 <sup>3</sup>	1120.5mm	90	Feb (239.5mm)	Sep (20mm)
1999 <sup>4</sup>	3027.5mm	146	Feb (581mm)	Aug (139.5mm)

**Notes:** <sup>1</sup> 2013 figures to the end of April. <sup>2</sup> Five year average. <sup>3</sup> Lowest annual total recorded during Topp's time as course superintendent. <sup>4</sup> Highest annual total recorded.





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# The nomad returns



For six-and-a-half years Phil Knight (pictured left) was course superintendent at the stunning Le Touessrok Golf Course in Mauritius

After 19 years plying his trade overseas, Phil Knight has returned to Australia to embark on a new chapter in a turf management career that has spanned more than 40 years. ATM catches up with the former superintendent of The Lakes Golf Club to look back on a remarkable career which has not only enriched his knowledge as a turf practitioner but also his life in general.

It's hard not to be envious of Phil Knight. If there is anyone who has embraced the wonderful opportunities that a career in turf management can present, it is Knight.

Back in just the fifth edition of Australian Turfgrass Management Journal – ATM Volume 1.5 October-November 1999 (to put it in perspective the edition you hold is No.86!) – then editor Phil George visited Knight at Nirwana Bali Golf Club & Resort in Bali and in his subsequent article labelled him “Australia’s most ubiquitous course superintendent”.

Knight had certainly earned that tag. To that point he had held superintendent postings at Shandon Golf Club (NZ), Rich River Golf Club, The Lakes Golf Club and Middle Ridge (Toowoomba) in Australia, as well as Tropicana, a huge 36-hole resort in Malaysia. In 1996 he arrived at Nirwana Bali which was part of the IMG stable and it was from there that his international career really took off, with further postings in China and Mauritius as well as doubling as IMG’s regional agronomist.

On 31 December 2012, however, having achieved pretty much everything he had set out to do when he left these shores, Knight landed back in Australia. Wanting to spend more time with his family, Knight resettled on the family’s 25-acre plot just outside the small northern NSW town of Guyra.

In typical fashion, however, Knight had barely unpacked the boxes before thrusting himself headlong into a new venture, starting up his own

company Long Paddock Organic Solutions. As well as being the major distributor for Charlie Carp organic fertilisers, Knight has also developed the Long Paddock Sportsturf Range which he is actively promoting throughout the country.

It’s not something that many 58-year-olds would have the inclination or stamina to do, but for the evergreen Knight it is just another chapter in a wonderful life story that weaves its way through more than 40 years and doesn’t appear likely to conclude any time soon.

In between hitting the road with his new venture and attending his son’s wedding in Brisbane, ATM editor Brett Robinson managed to steal a few hours of Knight’s time to look back on his remarkable and enriching career.

**ATM: Phil, you have had a wonderful career managing golf facilities in 11 different countries over a 40-year period. Take us back to your first forays into the industry?**

**Phil Knight:** “I was very blessed to have grown up on the northern beaches of Sydney. As with most kids of my generation then we just loved the outdoors – playing sports, going surfing – so early on I had a real appreciation of Mother Nature.

I was looking around at different trades and in late 1972 a groundsman position came up at Mona Vale Golf Club. I had never played golf, but it sounded appealing. I started under Ron Bond and



then Ken Maxwell who allowed me to go to Ryde College where I would meet some really great guys – John Odell, Gary Dempsey, Darryl Edwards, Mark O’Sullivan and the likes.

They were good times. Many of us at Mona Vale – including a young Jeff Gambin – were all keen surfers and I remember we would put the boards in the back of the old Holden work utility, drive down to beach and go for a surf during lunch. Then we would come back, wash the salt off our boardies and jump back on the tractor!

I was there until 1978 when the opportunity came up for the 2IC position at Manly. I was really lucky that I grew up in an era where there was a changing of the guard of the old school superintendents – the Vince Church’s, Ron Bond’s – and I was very fortunate to be nurtured by Bob Smith who had been at Manly since he was 15! He was a tough taskmaster but what he lacked in technical skills he made up for with an amazing work ethic. He mesmerised me and I came to work every day just wanting to please him.

After skylarking a little at Mona Vale, I crashed into some serious responsibility at Manly. My first year there coincided with the club’s 75th anniversary and we had three major tournaments – the Australian Women’s Open, NSW Open and the World Citizen Watch Seniors Tournament. It was a real eye-opener to see the attention to detail that went into these events and it really made an impression.



While at Manly, a guy from Colorado came to work on the staff and I was fascinated with his stories of the US industry. After some discussion with my newly-wed wife, we packed the bags and for nine months toured Canada and the US which proved to be a real changing moment for me.”

**The fusion of golf and the site’s spiritual significance combined to make Nirwana Bali one of Knight’s more memorable postings**

#### **ATM: What was it about the US that appealed?**

**PK:** “At that time golf course superintendents in Australia, with the exception of the Vince Church’s, Rube Walkerden’s or Claude Crockford’s, weren’t that widely respected or appreciated. In the US it was different. I was very fortunate to visit Capilano (Vancouver), Cherry Hills (Denver) which had just hosted the US Open, Bay Hill and Seminole

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**Nine Hindu temples featured prominently as part of the Nirwana Bali landscape**



(both Florida) and they just blew me away. The superintendent at Cherry Hills gave me a complete dossier of the work they had done prior to and during the Open and compared to what we had done for those three major tournaments at Manly, their work was unheard of.

It was meeting these superintendents and seeing the professionalism in the way they conducted themselves, how they managed and presented their courses to a championship level every day and the status they had been elevated to within their club. It was mind-blowing and allowed me to see a real career path that maybe wasn't that evident in Australia at the time."

**ATM: You had a small stint in New Zealand before returning to take on the superintendent posting at Rich River Golf Club. What was your time like up on the Murray River?**

**PK:** "In some respects when I landed at Rich River I regretted it. The club, as with many others along the river, had grown quickly and had come into a lot of money and as a result there was a lot of politics.

I still remember the greens chairman asking me during the job interview to show him my hands. I'm not joking! He wanted to see if I had callouses on my hands. As a 29-year-old you just rolled with the punches, but if that happened today I think I would have punched him! Anyway, he obviously liked the look of my hands so I got the job! I could have been a dead set dropkick, but hey, as long as my hands were good, that's all that mattered!

Seriously though, it was a tough gig but I was pretty proud with what I did there. We built the East Course and I convinced the board at the time to go wall-to-wall Wintergreen couchgrass as opposed to the unsustainable cool-season grasses on the existing West Course. We also built two bowling greens and the world's best croquet lawn! The club had so much money and as the greens chairman was also president of the croquet club, no expense was spared and I ended up building a magnificent 3000m<sup>2</sup> laser-levelled croquet lawn with triple row sprinklers!"

**ATM: From Rich River you hit the big time at The Lakes Golf Club in Sydney. How did your time there influence your career?**

**PK:** "Even though we did some great things, Rich River was an exhausting place and I wanted to get to Sydney and have a crack at one of the bigger golf clubs. The Lakes job came up and it was just a tremendous opportunity. I had a wonderful chairman by the name of Wilson Bradley who came up to Rich River to see the work we had done and he was suitably impressed. He didn't ask to see my hands either!

When you get into a club like The Lakes, the board members are all captains of industry and you elevate yourself into a new level of professionalism. I remember when I was in the US I visited Peachtree Golf Club and the superintendent there, who was an old GI, told me 'if you look like a bum you'll get treated like a bum'. So I always tried to project a professional image to the point where I would wear a suit and jacket and take a briefcase to greens committee meetings. I found that the more professional I projected myself, rather than just look like the glorified labourer, the more respected I was. Naturally you still had to put it out there on the course, but there's no doubt that people did judge you by your appearance. And having subsequently worked in Asia, it is so true.

I was blessed to have an amazing crew at The Lakes – my 2IC Peter Frewin, David Scaife, Kym Fuller, Shaun Probert, Scott Parker, Randal McNeill. One thing I will never forget was the 1987 Australian PGA Championship which we hosted after being given just three days' notice. Liverpool Golf Club was due to host it but had been flooded so we were asked by the PGA if we could hold it. I quickly called Peter Frewin and he just about jumped through the phone! So we grabbed greenkeepers from all over Sydney and pulled it off in three days!

**As well as the golf course, Knight oversaw 14ha of terraced rice paddies at Nirwana Bali**



After four years at The Lakes my personal life took a rocky turn and I got lost at sea a little. I went back to the US to clear my head and found out about a golf course project in Macau. It was the worst experience and I ended up back in Australia at Middle Ridge (Toowoomba) vowing never to go back overseas. Kym Fuller, however, had gone overseas at that time and was singing the praises of Malaysia and said 'You've got to come over!' So I applied for and got the job at Tropicana; that was 19 years ago."

**ATM: Was it your intention to make a career of it overseas and how did you adapt to your new surrounds?**

**PK:** "I had no intention of making a fist of things overseas. I had a decent career in Australia at the time, but I guess for me it was more about moving on to another stage in my life given the personal issues I was dealing with. Indirectly I ended up creating quite a good career path which I'm now very proud of.

Going from Australia where you had several hundred millimetres of rain per annum to 3.5 metres was certainly difficult. Here I was on a newly constructed golf course with a totally artificial environment – sand-capped fairways, profiles containing zero organic carbon levels and no cation exchange capacity with 3.5m of rain on top – and you're wondering why you can't grow grass or

maintain quality greens like you used to! It was such a massive learning curve agronomically and I was very grateful to other ex-pat Australians there like Martin Greenwood and Peter Smith who helped me get my head around the local agronomic issues.

Then there was the culture – wow! Most of the workers in Malaysia were Tamils or Bangladeshis. You had guys who had completed Masters degrees in Bangladesh who could make more money by coming to Malaysia and working as a groundsman! This was the first time I started to get a real understanding of the haves and have not's in the world.

**ATM: After Tropicana you became involved with IMG, an association that would last through until your return to Australia. What were some of the highlights during that period?**

**PK:** After opening up a Nick Faldo project for IMG in Thailand, the position at Nirwana Bali Golf Club & Resort came about. Not only was it an amazing Greg Norman-designed course, it was situated in a place of great spiritual importance for the Balinese. There were nine Hindu temples on the property and the 15th Century Tanah Lot temple next door. It was like having nine different churches. Each temple had its own parishioners and we had to be very respectful and make sure that our maintenance operations didn't impact on their ceremonies. It was an amazing place – the flora, the fauna, the temples.

"I remember the greens chairman (at Rich River) asking me during the job interview to show him my hands. I'm not joking! He wanted to see if I had callouses on my hands. I could have been a dead set dropkick, but as long as my hands were good, that's all that mattered!"

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**Knight oversaw the construction of Sheshan Golf & Country Club in Shanghai and just seven weeks after its opening in 2005 prepared the course for the inaugural HSBC Champions tournament which featured Tiger Woods**



We had a massive staff – about 170 – the most I had ever managed before. We also looked after 14 hectares of terraced rice paddies. I even had a group of guys whose job it was to climb coconut palms and remove the coconuts so they didn't fall on the golfers. We did some really good things there in terms of landscaping with lemongrass and the training of the staff which I'm very proud of.

During my time in Bali I was asked to be regional agronomist for IMG which meant not only managing Nirwana Bali but also visiting many golf courses around the region on behalf of IMG. At the time Kym Fuller was working in Zhuhai, China at the new Colin Montgomery-designed Golden Gulf. He had built 18 holes, but was about to take up a new posting at Le Touessrok in Mauritius, so I left Bali and went to Zhuhai to finish off the good work he had started.

Unfortunately after a few years the project ran into hard times and it was then that I had the good fortune of meeting the chairman and owner of the Sheshan Golf & Country Club in Shanghai. They liked what I was doing and offered me the position, but as part of that I had to relinquish the regional director role.

So we went about building this magnificent golf course – sand capped fairways, with creeks and

lakes throughout the property. The owner had a fetish for everything Tuscan so all properties and the clubhouse were Tuscan themed. It was like being in Italy! He also transplanted these massive trees to give an instant forest effect.

The course was wall-to-wall seashore paspalum with bentgrass greens and because it was situated in the transition zone we would overseed heavily with low-endophyte ryegrass. Managing the bentgrass greens in the heat and humidity was a real challenge. Due to the trees there was very little air movement, so we had massive fans made up to help circulate the air.

The paint was still drying in the clubhouse when we had the grand opening and then we had just seven weeks to prepare the course for the inaugural \$5 million HSBC Champions tournament which was to feature Tiger Woods. In seven weeks we shaved the surfaces right down, overseeded with ryegrass, topdressed wall-to-wall and then got it back up for the tournament and all of this with a crew who hadn't done anything like this before. Agronomically it was a massive challenge and it was extremely draining both physically and emotionally, but we pulled it off. It was the pinnacle moment of my career."

**Le Touessrok – "It was like dying and going to heaven".**



**ATM: Following your time in China you got the opportunity to take over at Le Touessrok. Why head to Mauritius?**

**PK:** "On two occasions during my time as IMG regional agronomist I had the opportunity to go to Le Touessrok. It was like dying and going to heaven. Kym was leaving – I thought what on earth for! – so for both work and lifestyle reasons we moved over. I ended up staying six and a half years, the longest time in any position I have had.

Le Touessrok was built under very strict environmental guidelines because of its island location. It is a magnificent course with some of the best vistas you could imagine, but it was a tough course to construct and then manage. After China where the staff would literally walk over cut glass for you, I found myself back to the 'manjana' style again



where you didn't know how many workers would turn up every Monday!

Just before I left we held the Mauritian Open. We had a team meeting and the only thing they were interested in was whether they got caps and t-shirts, otherwise they weren't going to do it. They were absolutely serious!

I was very proud of the work we did at Le Touessrok. There was a lot of lava rock which featured in the original design but in order to make the course a little easier we got jackhammers in and removed some of it. Given the autonomy I had, I was also able to redo parts of the landscape and give it a more rugged and natural look. I tried to make things a lot more sustainable too and I started using a lot of biological products imported from Australia and the US."

**ATM:** During your time overseas, you started down the path of using more biological products which ultimately led you on to your new business venture back here in Australia. Why did this interest in biological products start while you were overseas?

**PK:** "I guess my focus on using more biological products started when I was at Nirwana Bali in response to a number of issues we were having with the turf post-construction. Agronomically I was starting to move away from the 1990s bombardment of sulphur-coated, slow-release 'McDonalds' stuff

that was being spruiked hard. I got to the point where I thought, 'This is nonsense! This isn't working.' So I started looking more and more at biological products.

It was during my time in Mauritius that I was really able to expand my interest in the area. It was actually written into my contract that I had to manage the course to the highest level biologically. I started reading lots of literature in relation to agriculture and the importance of having dynamic, living soils to sustain a healthy crop.

I started importing and using a lot of biological products while at Le Touessrok and being there for a period I was able to see the benefits these products had over time and the positive changes they were making to the golf course environment. We were able to cut back our use of pesticides by 60 per cent and fungicides by 70 per cent, as well as turn around the performance of the seashore paspalum turf by having a 'living soil' philosophy. On the turf we were using more organic based products in both granulated and liquid forms that helped to build up microbial activity in the soil, while in the landscape areas we utilised lots of horse manure and mulch.

At one stage we were having issues with weeds in the landscape area and I made the observation that where there were casuarina trees around the course we had no weeds. I discovered that the casuarina needles had natural tannins in them which acted like a pre-emergent herbicide. So I started to

"In seven weeks (at Sheshan) we shaved the surfaces right down, overseeded, topdressed wall-to-wall and then got it back up for the HSBC Champions tournament, all with a crew who hadn't done anything like this before. It was the pinnacle moment of my career."

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It was during his time at Le Touessrok that Knight started to focus on the use of biological products and recognised the long-term benefits they had on the golf course environment



regularly place piles of needles in those areas where we were having problems and it worked.”

**ATM: Why on earth did you leave Le Touessrok? It seems like an island paradise!**

**PK:** “After such a long time away I felt like I’d achieved everything that I could have ever imagined, but more importantly I wanted to be closer to family again. I’d done my bit overseas and flown the Australian flag proudly along with a lot of other prominent Aussies, but the time was right to come home.

Coming back was an easy choice to make and at 58 I still feel young and motivated which is why I have started up this new company. I didn’t want to come back and manage a golf course and deal with committees. If I’m being honest, that’s probably why I have lasted so long in this industry – I haven’t had to deal with committees for the past 19 years! I felt at my age and with the experiences I have, I wanted to bring that back and focus it into something I am very passionate about – environmental stewardship.

It’s been an interesting transition but one I am enjoying. I’m dealing with Aussies again (laughs) so there’s been some readjustment there, but it has been fun. In my travels so far I have been blown away by the quality product our superintendents are producing and their level of expertise.”

**Having had 19 years overseas, what advice would you give those looking at doing something similar?**

**PK:** “Do your homework on the culture and be respectful. You have to be a good communicator, but more importantly you must have a personality; if you don’t have one you won’t last. Keeping two feet on the ground is important too. A lot of ex-pats go over there and it goes to their head. You’ll often have a driver for instance – don’t get in the back seat!

Working overseas will test you both mentally and physically, but it’s mainly mentally with the cultural differences and getting your head around the different way they do things. It’s a huge test

psychologically. In Shanghai you’ll be lucky to see blue skies due to the air pollution, then there are the 20 million people who have no concept of personal space. It is very confronting, but if you are mentally tough and have solid agronomic experiences which you can use as a strong benchmark, then give it a crack. But be warned, you’ll need every trick in the book.”

**Obviously your time overseas taught you a lot about turf management. What did it teach you about life in general?**

**PK:** “Don’t things for granted. Australians can be whingers but if they only knew the hardships that others face overseas. At Tropicana I had workers who lived in slums that bordered the course with no water and no sanitation, yet they would come to work every day. I had an assistant at Sheshan who had to stand for 25 hours on a train in order to go and see his family in the country, but he did so without any complaint.

It’s the little things like clear blue skies, unpolluted waters, the natural environment, our internal security. I remember visiting IMG National in Seoul, Korea and seeing these massive poles lining the fairways on every par four and five. I asked what they were for and was told that if a war broke out between North and South Korea they could string thick gauge wire across the fairways so North Korean planes couldn’t land!

Most of all, it has taught me cultural and religious tolerance. My staff came from diverse backgrounds and as much as I held different beliefs to them, I always respected their beliefs. If it made them good people, then I’m okay with that.

I will never forget the incredibly special times when I was invited by my staff to attend a Hindu and Tamil wedding and being treated like a guest of honour. Or going to dinner at someone’s place and seeing the huge effort they would go to to ensure that you were well looked after. Looking back, it’s those experiences that I will remember the most and it’s hard not to get very emotional about them.” 🌿

“Working overseas will test you mentally and physically. It is very confronting, but if you are mentally tough and have solid agronomic experiences which you can use as a strong benchmark, then give it a crack. But be warned, you’ll need every trick in the book.”

**Editor’s Note:** Phil Knight can be contacted on mobile 0408 553 090 or email [longpaddockorganicsolutions@gmail.com](mailto:longpaddockorganicsolutions@gmail.com)





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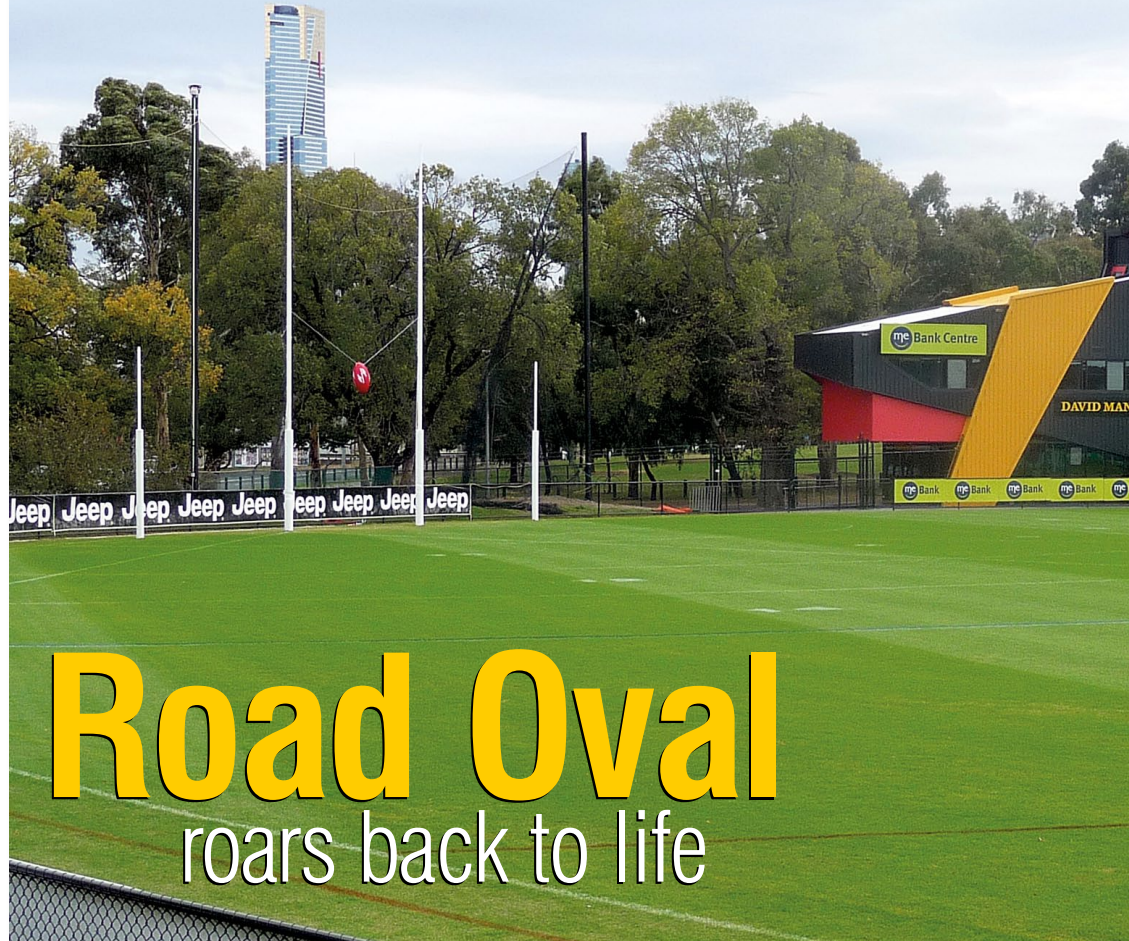


The redevelopment of Punt Road Oval has been part of a major investment by the Richmond Football club to improve its training and administration facilities

# Punt Road Oval

## roars back to life

The AFL arms race is on and among the first to undertake a major overhaul of its administration and training facilities was the Richmond Football Club. As part of a \$20 million project, the Tigers spent \$1.9 million redeveloping its famed Punt Road Oval which as Jarrod Hill and Brett Robinson write has provided the perfect platform from which to kick-start their 2013 Premiership campaign.



Following the trend of AFL football clubs in recent years, the Richmond Football Club embarked on redeveloping their administration and training facilities at Punt Road Oval. The \$20 million redevelopment included a new state-of-the-art administration and training facility (the ME Bank Centre) and an elite level training oval.

For over 100 years, the Punt Road Oval was co-tenanted by the football club and the Richmond Cricket Club. In 2012 the cricket club decided to relocate to Glen Waverley, paving the way for the football club to redevelop the oval without the inclusion of the centre wicket block and practice wickets at the southern end of the ground.

The existing oval was egg-shaped with the northern end of the oval (Punt Road end) having shallow pockets. There was also a significant 1.5 metre fall across the oval from the Jack Dyer Stand to the historic scoreboard. Other significant issues with the ground included:

- A high percentage of fines in the rootzone profile. This resulted in poor infiltration through the profile leading to areas of the ground becoming boggy and unsuitable for use. Excessive compaction of the profile also made the ground hard under foot for the players and restricted healthy turf growth;
- The existing external drainage network located in Brunton Avenue into which the oval drainage discharged was over capacity, leading to prolonged ponding of water on the Punt Road Oval surface; and
- The presence of the centre wicket block and practice wickets.

### DESIGN PHASE

In 2009, Arup was engaged to undertake the detailed design and documentation of the redevelopment of the Punt Road Oval. The Arup lead team also included Australia's leading specialists in the field of elite level sports field design – John Neylan (turf agronomist) and Bernard Peasley (irrigation designer).

The key deliverables for the redevelopment were;

- The creation of an elite level training oval with dimensions the same as Etihad Stadium (Richmond plays a number of games at Etihad Stadium, while an MCG-sized oval was simply too big to fit within the existing site boundaries);
- Irrigation system to be designed to allow for connection to the Yarra Park precinct sewage treatment system;
- Sufficient surface and subsurface drainage provisions;
- Turf profile suitable for the predicted level of use; and
- Installation of new AFL goal posts and perimeter fencing.

Working closely with the Richmond Football Club and the club's project manager, Arup developed options for the redevelopment of the oval and associated construction costs. The approved design resulted in:

- Rotating the major axis of the oval;
- An extension of the playing surface along the Punt Road boundary to achieve the same dimensions as Etihad Stadium (approx. 18,000m<sup>2</sup>);





MAIN PHOTOS: ANDREW PEARCE



- Removal of the single cross-fall across the ground; and
- Removal of the wicket block.

The final design included a 'turtle-back' shaped playing surface with a 300mm USGA specified rootzone sand, herringbone subsurface drainage system and a variable depth perimeter concrete spoon drain.

To ensure uniform delivery of irrigation water to the new oval, Mornington-based Eastern Irrigation specified a dedicated Rain Bird system including 75mm poly ring main, 50mm PEB control valves and 79 Falcon 6504 stainless steel sprinkler heads, all run from a Rain Bird ESP 16LX control system.

The design of the oval irrigation system allowed for the connection to the MCG water treatment plant where Arup were the technical advisors. The treatment plant is located in Yarra Park adjacent to the Gate 2 members' entrance at the MCG and is buried beneath the surface. Victoria's largest underground water recycling facility, the plant treats sewage from the local sewerage network to Class A standard, with more 180 million litres of recycled water expected to be produced each year.

## WEATHER DELAYS

StrathAyr was awarded the contract for the reconstruction of Punt Road Oval with Peter McCullagh installed as project manager. Post-tender, StrathAyr presented an option of a reduced rootzone profile (285mm instead of the originally specified 300mm) with the inclusion of a 100mm gravel drainage blanket. The moisture release curve for the selected sand indicated that the profile

reduction and inclusion of a gravel layer would ensure that the oval would drain sufficiently.

Construction works started mid-August 2012 and right from day one the project battled the elements. During August there were several large storm events that impacted on the construction programme and the condition of the underlying materials. Compounding this was that during the construction phase several large areas were identified to have unsuitable material for compaction. Subsequently this material was removed from the site and replaced with select engineered fill.

While the subgrade was being shaped, the perimeter drainage main and associated variable depth spoon drain were being constructed. A series of drainage sump pits were located within the low points of the variable depth spoon drain that connected to the perimeter drainage main.

Once the subgrade was shaped, the in-ground services were trenching in and connected to the perimeter infrastructure already installed. The presence of the subsurface drainage being installed was a significant milestone as it enabled the subgrade to drain rapidly in the event of rain.

The other significant result of having the in-ground services installed was that the bulk of the hard work was completed and from that point onwards it was a layered construction process for the drainage gravel (sourced from Burdetts), rootzone sand (sourced from Rocla) and turf. The final trim of the rootzone sand layer was completed by the end of November with turf delivered to the site early in December.

## FEELING THE HEAT

Washed Legend couchgrass sod was chosen to turf the new-look oval because of its suitability to Melbourne's climate, its hardiness and ability to recover quickly from wear and the ease with which it can be oversown into.

StrathAyr sourced the 18,000m<sup>2</sup> of turf required from Dubbo-based turf farm Turf the Lot. After

**The new Legend couch surface was oversown with 350kg/ha of Colosseum ryegrass in autumn**



**Eastern Irrigation installed a dedicated Rain Bird irrigation system which connects to the Yarra Park water treatment facility**





**Above and right: StrathAyr sourced the 18,000m<sup>2</sup> of turf from Dubbo-based farm Turf the Lot. Post-tender, StrathAyr presented an option of a reduced rootzone profile (285mm instead of the originally specified 300mm) with the inclusion of a 100mm gravel drainage blanket**

**An extension along the Punt Road boundary and slight rotation in the main axis of the oval has meant the new-look ground now has the same dimensions as Etihad Stadium**

harvesting and washing the Legend couch, the 1.2m x 25m maxi-rolls were loaded into a refrigerated truck and transported 10 hours to Punt Road Oval for laying. Eight truckloads carrying in excess of 2000m<sup>2</sup> each were required to complete the job.

While wet weather had created plenty of headaches early on in the project, it was extreme heat which would prove a major challenge during the harvesting and laying of the turf. Dubbo experienced a very hot late November/early December period with temperatures climbing into the 40s during harvesting time. Despite the refrigerated transport buying some time, it was still a race against time to get the turf harvested, transported and then laid before heat stress deteriorated the quality of the Legend.

On one occasion, one of the refrigerated trucks broke down halfway between Dubbo and Melbourne and was off the road for a full 24 hours. Despite the turf eventually arriving in Melbourne and being laid, the decision was made to roll up the entire batch and discard it two days later after it failed to respond.



Prior to the turf being laid, the profile was given a good dressing of dolomite to reduce the acidity of the sand and increase levels of calcium and magnesium. A mix of organic and synthetic fertilisers was also applied and after the turf was laid a standard NPK was applied over the top every couple of weeks during a four week grow-in period before being handed over.

## BACK ON HOME TURF

Since the oval has been handed back to the club, specialist sportsfield contractor Pitchcraft has taken over the maintenance of the ground. As well as the usual cutting (2-3 times per week) and regular fertilising with both granular and liquid forms, the oval was given a heavy topdress and groomed to even out and open up the Legend canopy.

In autumn the oval was overseeded with 350kg/ha of Colosseum ryegrass followed by a further dusting of 30m<sup>3</sup> of a Rocla medium washed sand. At this stage the intention is to transition the ryegrass each season, but usage patterns will ultimately govern this.

The Tigers conducted their first training session on the new-look oval on Monday 14 January, with Richmond Football Club chief executive Brendon Gale commenting that the new playing surface was the latest milestone for the club as it continued to invest in its facilities.

"We've been here since 1885," said Gale. "We've got the great ME Bank Centre here for our players and now we've got this wonderful oval, and we're still at the place we've always been – Punt Road Oval. It's an elite oval now, fit for the purpose of training for AFL football and second tier footy as well."

"A lot of people have put in a lot of hard work, and we're extremely grateful for the financial support we received from our people – our members, our Fighting Tiger Fund and the AFL – that has allowed this to happen." 🙌





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The new GWS training facility, housed within the Sydney Olympic Park precinct, was officially opened in early May ahead of the Giants first home game at Skoda Stadium

Nathan Humphreys from HG Sports Turf outlines his company's involvement in the design and delivery of an elite training facility for the AFL's newest franchise Greater Western Sydney.



# Training like Giants

In April 2012, AFL stadium development manager Simon Gorr approached HG Sports Turf to assist with the design, specification and construction of a new elite AFL training field for the competition's second Sydney-based franchise Greater Western Sydney (GWS).

The 17,577m<sup>2</sup> training field was to be built on an existing golf driving range at Sydney Olympic Park (SOP). The project also involved the construction of a 5000m<sup>2</sup> community field for the benefit of the Sydney Olympic Park Authority (SOPA).

The construction of both fields was a priority for the AFL, in particular the elite training field which would enable GWS to move from its temporary training base at Blacktown International Sports Park to new facilities within the SOP precinct which also houses its home ground, Skoda Stadium. The second stage of the works was the upgrade of the existing buildings on site to create a new administration base for the club.

A project team was duly established and included the AFL (client/operator), SOPA (land holder), HG Sports Turf (sports field design, specification and construction), Aurecon Group (consulting engineer/site investigation), Douglas Partners (landfill verification and monitoring), Urbis (planning and development consent) and Blackett (construction certificate/verification of work). Various authorities were also consulted and engaged throughout the approval process, including the NSW EPA and Sydney Water.

## SPECIAL SITE

The site itself is a contaminated waste landfill that was part of the overlay for the 2000 Sydney Olympic Games. During the Olympics, the site was used as a thoroughfare for people entering and leaving the Olympic Park precinct and since then has been used as a golf driving range.

The original assessment of the site deemed it fit for recreation and measures were in place to ensure the leaching of gases and water from the underlying landfill were measured and treated. Hence it was imperative that the design of the new AFL training field did not compromise the design of the existing landfill site.

At the instruction of HG Sports Turf, Aurecon undertook a site investigation to determine the levels of the existing golf driving range and what lay beneath these levels. The original design included a 650mm clay cap over the contaminated fill, 300mm drainage gravel/sand above this cap and 100mm topsoil overlaying the drainage sand. Subsoil drainage pipes were cut into the clay capping layer and connected to a network of surrounding collector drains and pits, all of which channelled the surface and subsoil water to treatment ponds.

The Aurecon investigation confirmed that the elements of the original design were present and that there had been some settlement over the site since its construction. However, the investigation could not quantify the impact of this settlement on the underlying layers and drainage. The investigation





did, however, confirm HG Sports Turf's position that the existing clay capping and drainage sand/pipe could remain and form part of the new design. That avoided the removal of materials from the site and the need to import additional fill, which meant a \$2million saving for the AFL.

The new design included a 1 per cent slope to either side of the fields and a 0.1 per cent slope down the length of the fields (i.e.: the length of the golf driving range). These slopes represented a best-fit for the site, having regard to the underlying layers and the surrounding buildings and structures.

To create the new levels, the scope of work entailed removing and stockpiling the existing grass and topsoil and levelling the underlying drainage gravel/sand to the new levels, without disturbing the underlying clay cap or existing subsoil/collector drains. The new subsoil and collector drains were to be installed in the existing drainage gravel/sand, as was the new irrigation system. Neither could be installed in the clay capping layer.

The new drainage system also had to be self-contained. SOPA did not wish to overload the existing stormwater treatment ponds, nor did they wish to introduce water to these ponds and downstream creeks that may potentially have greater nutrient content arising from the new training field.

As such the new drainage system was designed to collect and discharge stormwater into tanks (placed on either side of the field) which are operated as first flush tanks in the first instance

and then recycled water for irrigation in the second instance. Any surplus stormwater from these tanks is then discharged to street stormwater.

The new design included a 300mm USGA-spec rootzone sand profile with Andrew Peart (AGCSATech) engaged to test the new rootzone. Samples from many sand suppliers were tested but most fell outside the ideal specification. Andrew also assisted the project team with research and findings to substantiate the assumptions surrounding nutrient leachate and the like.

The new irrigation system design included 141 individual Rainbird 8005 sprinkler heads run from a Hunter ACC controller, 109 of which were designated to the 21 stations to irrigate the AFL training field and its surrounds. Soil moisture sensors were also included in the design. These will come in handy on hot, windy summer days as the site is raised and exposed from its surrounds and is prone to accelerated drying.

## SURPRISE FINDINGS

Having established the existing conditions and finalising the design, specification, scope of works and pricing, a detailed programme and construction management plan was prepared. This included a detailed environmental management plan because of the sensitivities attributed to the site. With the applicable consents in place, works finally started mid-November 2012.

Once on site, HG Sports Turf undertook its own inspections of the underlying conditions with findings contradictory to those of Aurecon's. About 70 per cent of the three hectare site was found to have a road base material rather than a gravel/sand material. The depth of this intermediate layer was also far less than original findings, which then brought the capping layer into play because the drainage and irrigation now needed to be bedded into the clay capping layer. Permission was sought from the NSW EPA and SOPA to disturb the clay capping layer and monitoring of gases etc... was required.

Work continued with the stripping and stockpiling of 1600m<sup>3</sup> of topsoil and the shaping of the intermediate layer, by which time Christmas

**The GWS elite training ground and a secondary community field were constructed on top of an old landfill site which until recently housed a golf driving range**







◀ The new design included a 300mm USGA-spec rootzone sand profile

had arrived. A decision also had to be made as to how to best counter the inconsistencies within the intermediate layer. With a large amount of road base material located beneath the planned ground, it was decided that this material would be used to form the new subgrade and that the new subsoil drains would be installed into this.

Over this new subgrade, a washed 5mm gravel 75mm in depth was specified and placed to guarantee the timely removal of water released from the rootzone profile above. This gravel layer was not a part of the original scope of works, nor was it included in the Development Consent, so approval from the NSW EPA and SOPA was required.

An area of the capping layer also needed remediating because when machinery tracked over this area the ground beneath would heave. This required another application to/approval from the NSW EPA and SOPA.

After the perimeter collector drain and kerbing was installed, the lateral subsoil drains in one quarter of the field were placed in early January 2013. The Development Consent/SOPA approval required landfill gas monitoring of all trenches and it became quite a juggling act with various sections of work taking place at different locations over the site.

By mid-January the project really ramped up with a handover date scheduled for early April 2013. After the drainage and the irrigation was installed in each quarter of the field, the 75mm of gravel was placed over the top and levelled ready for the rootzone sand to be placed.

By 1 February the placement of rootzone sand had started, however, due to wet weather only a

few hundred tonnes of the 11,000 tonnes needed was received before a storm hit and made the site inaccessible for deliveries. More time was lost while waiting for the site to dry out to enable the trucks in to tip. Some 150mm of rain fell on 14 out of 28 days in February so needless to say it became a long, drawn out process to get the material into the site and on the ground. At the same time the stockpiled topsoil material had to be redistributed across the site into the surrounds of the two fields which was also proving difficult because of the wet weather.

Once all the rootzone material was in and the amendments applied, the new fields were given a final trim with the laser grade scoop. The first load of washed Legend couch turf in maxi rolls was delivered to the site on 27 February 2103. The priority was to turf the GWS training ground first to advance its grow-in time. Half of the field was laid before the rain set in again which delayed the laying of the remaining half of the field until 8 March.

While the Legend turf was being laid on the training field, an additional 12,500m<sup>2</sup> of Wintergreen couchgrass turf was being laid across the landscaped areas and the community field. This was completed mid-March and after a four week establishment period the whole site was handed back to the AFL by 8 April.

## ELITE VENUE

Overall, this was both an interesting and challenging project for HG Sports Turf, the site itself being a landfill and coupled with the construction challenges mentioned above. The construction conditions that had to be met (e.g.: machinery and materials were not allowed to be stored/stockpiled on much of the site), meant all items had to transfer directly from the transport to the area of use (with the exception of the stockpiled topsoil).

Because of the limited space onsite and the one way access road to the site, we were not able to receive any more than three trucks at any one time. With about 450 truckloads of imported material, deliveries had to be well orchestrated.

Since taking over the day-to-day maintenance of the training facility, Skoda Stadium curator Terry O'Keeffe and his team have overseeded the ground with Caravelle ryegrass at 4kg/100m<sup>2</sup> and run the Amazone across the surface. GWS trained on the new ground for the first time on Monday 6 May ahead of their round seven match against the Adelaide Crows at Skoda Stadium on 12 May. 🌱

Below and right: Legend couchgrass maxi rolls were used to solid turf the 17,577m<sup>2</sup> elite training ground, while Wintergreen was used on the 5000m<sup>2</sup> community field and surrounding landscaped areas



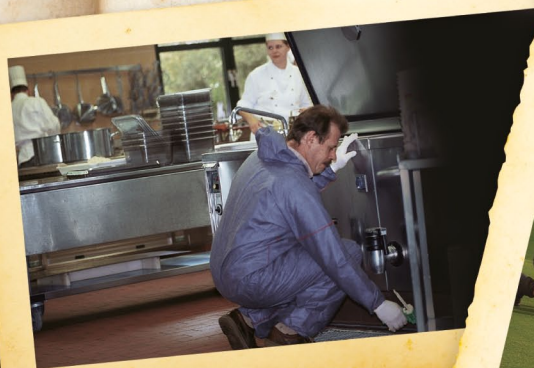


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The Essendon Football Club has embarked on the development of a \$25 million High Performance Centre at Tullamarine which will see club's training facilities shift across from Windy Hill

# High-altitude training

To keep ahead of its AFL rivals, the Essendon Football Club has embarked on the development of a purpose-built, state-of-the-art training and administration facility. Michael McMahon and John Neylan look at the project which has seen the construction of two ovals to the exact dimensions of match-day venues Etihad Stadium and the MCG.



As AFL clubs move into the modern era of professional football, most have developed or are in the process of developing elite training facilities. As we have recently seen, North Melbourne and Richmond football clubs have undertaken major upgrades to their gym, fitness and football operations facilities as well as substantial redevelopments of their training grounds. All of the clubs are looking to train on their own fields, preferably replicating the venues where they play and not having to share with cricket.

The Essendon Football Club (EFC) has embarked on an extensive new development in constructing a High Performance Centre on Melbourne Airport land in the suburb of Tullamarine. The vision for the new development will enable the club to "secure its long-term future and build the best, biggest and most flexible training base in the AFL".

The cost to secure this new facility is about \$25 million. Some \$6 million has come from the Australian Government's Infrastructure Employment Projects Scheme which was announced back in November 2011. The club is also undertaking an intensive fundraising campaign, with members and supporters already donating nearly \$850,000 as part of the club's 'Flight Plan'.

The new complex is located on a 10-hectare site double the footprint of the club's existing Windy Hill headquarters which will remain as a secondary training venue. The new site, which will be fully operational later in 2013, includes;

- Two AFL-sized ovals – one the size of the Melbourne Cricket Ground (Oval No.1) and the other Etihad Stadium (Oval No.2);
- A best practice indoor training space suitable for drills, match tactics and game simulation;

- A consolidated football administration building;
- Medical, sports science and recovery areas;
- A pool and aquatic recovery area;
- A large gymnasium space;
- A one kilometre running circuit;
- An auditorium and dedicated spaces for player/coach reviews and games analysis; and
- A player development, lounge and study area.

The new site is 18 kilometres from Melbourne's CBD and about 9km from Windy Hill. The land size allows for future growth for the club and in the words of the EFC it will allow them to "deliver a multi-generational outcome". As with many of the new AFL training facilities, there is a community use component, with one of the fields available for community use and the indoor facilities also available to other local sporting groups.

Planning for oval works started back in mid-2011 with the timeframe for the project demanding that Oval No.1 be ready for training by January 2013. The club's football department was desperate to have its own training field without a cricket wicket in the centre (Windy Hill is home to the Essendon Cricket Club) and also to be able to avoid having to source alternative training fields in the pre-season.

The project was managed by Pure Projects with a group of sub-consultants managing earthworks calculations, designing the infrastructure, architects, agronomists and others all under the watchful eye of EFC chief operating officer Dominic Cato. Because of the tight timeframes the pressure was on to get the various tenders out so that works could start as early as possible.

## A PROJECT LIKE NO OTHER

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MAIN PHOTOS: ANDREW PEART



site was cut off and used to fill the bottom half of the area. The earthworks consisted of moving 12,000m<sup>3</sup> of soil.

One aspect of the extensive drainage works required for the site was the diversion and subsequent management of a natural water course. This required the design for the water course to meet stringent environmental requirements.

With the cut and fill process completed, other earthworks were undertaken including the base formation of the playing fields, general site excavation and formations, formation of surface drainage paths, buildings, roadways and paths. In addition to the extensive earthworks there was also considerable infrastructure works required including the installation of water, gas, sewer utilities and fire services.

The biggest challenge encountered during this phase came with the unexpected discovery of a rock section, most prominently on the Melrose Drive (east) side of the ovals. For every bit of rock that was taken out 500mm below the finished subgrade height, clean clay had to be brought in and compacted. The rock proved very difficult to remove and a 40 tonne excavator and hammer was brought in specially to deal with it.

Removing in excess of 30,000 tonnes of rock to allow for the installation of the drainage system exposed an additional challenge of what to do to backfill the massive hole. After using all

**The two EFC ovals, which are the same dimensions as the MCG and Etihad Stadium, have been turfed with Wintergreen couchgrass. Oval No.1 (pictured) was solid turfed in order to be ready for pre-season training in January**

McMahons have experienced plenty of challenges during previous projects. In having to construct not just one but two ovals on a degraded greenfield site with each oval being of differing design, this was certainly a project unlike any other.

The Melbourne Airport land on which the two grounds were to be built was previously undeveloped grazing land and degraded woodland. The two specified ovals were to be sand-based constructions with an extensive network of subsoil drainage. Turf selection for both fields was Wintergreen couchgrass with Oval No.1 grassed with 20,260m<sup>2</sup> of washed turf and Oval No.2 sprigged.

McMahon's task was to deliver the project through all of its phases. To tackle a project of this magnitude, two separate project phases were established. The first phase was the clearing of the site including the grubbing and clearing of a pine plantation, topsoil stockpiling, disposal of surplus spoil and trimming. This was then followed by the extensive cut and fill works where the top half of the

**The two ovals are sand-based constructions with an extensive network of subsoil drainage**



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◀ **The Tullamarine site provided some climatic challenges with several hot days and strong northerly winds threatening to derail the laying and establishment of the grass**



**The land on which the two grounds have been built was previously undeveloped grazing land and degraded woodland**

**A 5m high, 130m long wind berm has been constructed on the northern side of Oval No.1 to lessen the impact of wind**



excavated material from site the importation of clean compactable material began in earnest. A wet Melbourne August (50mm) did little to make this process easier and at times it proved difficult to get trucks on site.

To compensate for the removal of the rock, some minor alteration to the surface configuration of Oval No.2 was required. This rock shelf also created some significant challenges for the drainage contractor as they had to hammer their way through some of the residual rock on Oval No.1.

One other unique aspect of the project was the construction of a wind berm on the northern side of Oval No.1 because of the concerns with excessive wind affecting the training facility. As part of its initial site investigations, the club obtained and considered wind averages for the past 40 years for Melbourne Airport and other areas of Melbourne. The data showed that Melbourne Airport was windier than the inner city, although Melbourne Airport wind conditions were comparable to Essendon Airport, the closest Bureau of Meteorology station to Windy Hill. The berm is five metres high and 130m long and will eventually be established with trees. A 9m high netting system has also been installed.

As the initial infrastructure works were nearing completion, planning was already underway for the second phase of the project which included

irrigation to both ovals, an extensive network of subsoil drains, application of a sand rootzone (California style), grassing and oval fixtures including goal posts and netting.

The irrigation system is a Rain Bird decoder system and is designed to give greater control of water application through the middle of the field. Once installed this allowed for the about 25,000 tonnes of sand to be imported. There was an exacting specification for the sand and following some initial challenges all went smoothly.

The priority was the completion of Oval No.1 and the first rolls of washed Wintergreen couchgrass were laid on 9 October 2012 while sand was still being spread at the far end of the field.

With the project being of such significance and strategic importance for the Essendon Football Club, the laying of turf on Oval No.1 was met with great interest from all those associated with the project. Seeing the grass going down provided a degree of confidence that the January 2013 timeline would be met. The transformation from a degraded rural site to a construction site and now to an elite sports field was becoming a reality.

## FLYING HIGH

The Tullamarine site provided some climatic challenges with several hot days and strong northerly winds during November and December threatening to derail the laying and establishment of the grass. With installation of the sand and sprigging of Oval No.2, the irrigation system and water supply was pushed to the limit. The project concluded with the sprigging of the second oval, installation of goal posts and netting and a rigorous, fast-tracked grow-in and maintenance regime.

In late December there was a meeting of all parties involved with the turf management of the new facility to discuss whether it was ready for handover and the first official training in early January. While there were a few minor areas that were not quite perfect, it was accepted that the ground would be ready to go.

In the months following Oval No.1 being handed over, specialist sportsfield contractor Pitchcraft (which also looks after the likes of Punt Rd Oval, Simonds Stadium and Waverley Park) has taken over the maintenance of the ground. As well as intensively cutting (2-3 times per week), grooming and fertilising (both granular and liquid applications) the surface, Oval No.1 was given a heavy topdress with 100m<sup>3</sup> of a Rocla medium washed sand. During autumn the ground was oversown with 350kg/ha of Colosseum ryegrass followed by a dusting with 40m<sup>3</sup> of a Rocla medium washed sand to bed in the seed.

Essendon has made an impressive start to the 2013 AFL Premiership season and this may be in part due to their new training surface. The elite indoor training centre is still under construction and is expected to be completed mid-2013. 🏏



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**Allan Shorland**  
Secretary Manager  
The Metropolitan Golf Club







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# 29th Australian Turfgrass Conference and Trade Exhibition Sunshine Coast June 23-28 2013



# Conference Guide



# Welcome to the Sunshine Coast

I would like to personally welcome you all to the 29th Australian Turfgrass Conference and Trade Exhibition at the Novotel Twin Waters Resort on Queensland's fantastic Sunshine Coast and thank you for making the effort to attend.

The industry is confronting a time of many changes from legislation and compliance to the challenge of keeping our turf surfaces playable with seemingly ever-diminishing resources. To assist you meet these challenges we have compiled a broad and diverse range of speakers and topics to help you remain at the cutting edge.

Our venue for the week provides us with an excellent location for a conference and a relaxed learning environment that I am sure you will enjoy. Not to mention the amazing Queensland winter weather and for the golfers among us the Twin Waters Golf Club which has some of the purest turf surfaces you will ever witness.

One exciting new initiative this year is the Jacobsen sponsored workshops that are being held on the Monday of conference week. These are being held in response to members' requests and we have engaged



The trade exhibition this year, while on the smaller scale, will still allow you to see the latest innovations and products available in our industry. As always we are indebted to our trade partners for their unwavering support of conference week.

Once again we will be conducting a Sportsfield Stream and the Society of Australian Golf Course Architects are with us once again and I extend a warm welcome to those delegates and trust they enjoy the week planned for them.

At my first turf conference way back in 1986, Peter McMaugh in his closing remarks said that "if you can take home three ideas from this week that will benefit your club, then your attendance will have been worth it". Based on that premise, I am sure you will return home brim full of new ideas.

**PETER LONERGAN**  
COOLANGATTA &  
TWEED HEADS GC  
PRESIDENT, AGCSA



two experts in their respective fields to deliver them. Dr Thom Nikolai returns following his popular presentations on the Gold Coast three years ago and renowned golf course photographer Gary Lisbon will present a photography workshop, which in the age of technical presentations to our employers may just give you that edge.

## 29TH AUSTRALIAN TURFGRASS CONFERENCE AND TRADE EXHIBITION

In conjunction with principal event sponsors **Toro, Syngenta, Jacobsen, Rain Bird** and **John Deere**, the AGCSA extends a very warm Sunshine State welcome to delegates of the 29th Australian Turfgrass Conference and Trade Exhibition.

After Hobart (2009) and Adelaide (2011), the popular regional conference format wings its way to one of Australia's favourite holiday destinations in 2013 – the Sunshine Coast. Home for the week will be the region's premier purpose-built resort – the magnificent Novotel Twin Waters Resort, a veritable one-stop conference venue with everything contained in the one complex.

Every year the Australian Turfgrass Conference prides itself on bringing together the industry for a week of cutting edge education. In order to keep the event fresh for delegates and in response to feedback via the annual post-conference survey, 2013 will see a number of changes.

While the education programme format from Tuesday to Thursday remains unchanged, we have moved the 2013 Toro AGCSA Golf Championships to the Sunday. This has freed up the Monday which now features two highly informative full-day workshops in addition to the main conference programme. Also included in the delegate package

this year is a hawker style beach night (Tuesday), where food and drinks will be served.

### JACOBSEN WORKSHOPS

A fantastic new initiative in 2013 is the Jacobsen sponsored AGCSA workshops scheduled for Monday 24 June. Two workshops have been formulated, one on golf course agronomics and the other on how to photograph your golf course.

The AGCSA is delighted to welcome back popular 2010 conference presenter **Dr Thom Nikolai** from Michigan State University to conduct the agronomic workshop. He will also present a series of papers throughout the conference week in both the Golf and Sportsfield streams.

Titled **'Balancing budgets, turfgrass health and customer satisfaction'**, the five-hour intensive workshop will see Dr Nikolai outline proven methods that can lead to healthier turfgrass and happier customers, with less inputs. Cultural and mechanical practices that will be addressed in this workshop will include putting green mowing height, mower maintenance, fertility, irrigation and lightweight rolling. Given the current difficult operating climate facing many clubs, this workshop is a must attend and you can be guaranteed that Dr Nikolai will deliver it in his usual inimitable style.



**Dr Thom Nikolai**



**Gary Lisbon**





The second workshop is also being conducted by another renowned expert in the form of golf course photographer **Gary Lisbon**. Lisbon has photographed a huge number of golf courses both in Australia and around the world and will impart insights into how to best capture the unique landscape that is your golf course.

With reports to boards and committees such a fundamental part of a course superintendent's role these days, being able to illustrate them with photos of your course and operations is extremely important. Lisbon will take delegates through a hands-on workshop which will provide plenty of tips on how to capture top quality images.

Areas that Lisbon will cover include camera and lens options, camera settings, photo perspective and the importance of location, timing and planning your photo. Delegates are encouraged to bring their cameras to the workshop as in the afternoon they will be able to spend some time in the field putting their newly acquired skills into practice.

Please note that in order to attend any of these workshops you must have indicated so on your conference registration form. At the time of going to print the photography workshop was fully subscribed, however, spots were still available in the agronomic workshop.

## EDUCATION SESSIONS

The Monday workshops kick-start what will be a wide-ranging and thought-provoking series of presentations throughout the week. Some of the other highlights of this year's conference include:

- **Dr Geoff Allen:** The Geelong Football Club doctor made headlines for all the wrong reasons back in 2010 when he suffered an on-field heart attack during a warm-up session before the Cats played the Adelaide Crows at AAMI Stadium. Dr Allen will provide this year's opening conference address, continuing the theme of men's health which has been a focus of recent conferences. (**Plenary Session, Tuesday 8.30am-9.10pm**).
- **Dr Thom Nikolai:** As mentioned earlier, Dr Nikolai will also be presenting a number of

papers in the Golf and Sportsfield streams. Among these include the 'Top 10 changes in golf course management in the past 25 years' (**Golf Stream, Wednesday 2pm-3pm**) and 'Environmental stewardship in the green industry' (**Sportsfield Stream, Wednesday 8.30pm-9.15pm**).

- **Chemical use forum:** **Stephen Bernhard** (Bernhard & Co) teams up with course superintendent **Ben Tilley** (Headland Golf Club) and **Peter Watts** (Muirfield Golf Club) to discuss chemical use (**Plenary Session, Tuesday 2.40pm-4pm**). This forum is preceded at 2pm by e-par's **Terry Muir** who will discuss off label chemical use liabilities.
- **Vegetation management forums:** WA-based arboriculture and environmental consultant **Paul Barber** will team with course superintendents and ground managers to look at ways to manage and audit vegetation at your facility. In the Golf Stream forum (**Wednesday 11am-12.30pm**) **Darren Wilson** (Wembley Golf Complex) and **Adam Robertson** (Kew Golf Club) will provide case studies on their experiences, while in the Sportsfield Stream forum (**Thursday 11.30am-1pm**) **Shane Biddle** (University of Queensland) and **Nathan Tovey** (Trinity Grammar) will join the discussion.
- **Golf course and sportsfield management in Queensland:** Both the Golf and Sportsfield streams will include comprehensive sessions on the management of golf courses and sports grounds in Queensland. The Golf Stream session (**Thursday 11.30am-1pm**) includes Queensland-based superintendents **Ben Tilley** (Headland Golf Club), **Dr Brett Morris** (The Brisbane Golf Club) and **Robin Doodson** (Sanctuary Cove Golf & Country Club), while the Sportsfield Stream session (**Thursday 8.30am-10am**) includes **Paul Sanson** (Tony Ireland Stadium), **Brendan Ott** (Toowoomba Grammar) and a representative from Queensland Cricket. Horton Park Golf Club course superintendent **Pat Pauli** will also present on the club's impending relocation



**Novotel Twin Waters Resort** provides a one-stop conference venue with fantastic facilities for both learning and socialising



**Ben Tilley**



**Darren Wilson**



**Nathan Tovey**



**Robin Doodson**



**Brendan Ott**



**Paul Sanson**





**John Neylan**



**Peter Semos**

to a new course which is in the process of being constructed (**Golf Stream, Wednesday 9.50am-10.30am**)

- **Using the internet to research turf related problems:** Google is a wonderful tool, but there are many other avenues turf managers can go down to source turf-related information. **John Neylan** will look at some of the key online research tools that can be utilised, including a comprehensive look at the extensive Turfgrass Information File database which AGCSA members now have access to. (**Plenary Session, 9.50am-10.20am**)
- **Sharon Kaibel:** Following her popular presentations on HR management and communication at the past two conferences, Sharon Kaibel returns to conduct the closing workshop of this year's conference. This

workshop will look at roles, position descriptions and staff reviews, team discipline, morale and conflict resolution and the importance of establishing policies and procedures. As with her past presentations this is one not to be missed. (**Combined Golf and Sportsfield Stream, Thursday, 2pm-4pm**)

So whether you are a course superintendent, curator, apprentice, qualified greenkeeper, groundsman, trade member, turf technician, general manager or golf course architect, the 29th Australian Turfgrass Conference and Trade Exhibition 2012 is sure to have something for everyone.

**Disclaimer:** The above speaker session information was correct at the time of this edition of ATM going to print. 📄

## EVENT INFORMATION AND CONFERENCE REGISTRATION

**T**he conference registration desk will be located just past the main reception area within the Twin Waters Resort Complex. Delegates are requested to visit the registration desk upon arrival to receive their conference accreditation and delegate satchel. The registration desk will operate at the following times:

<b>Sunday</b>	<b>2pm-4pm</b>
<b>Monday</b>	<b>9am-4pm</b>
<b>Tuesday</b>	<b>8am-4pm</b>
<b>Wednesday</b>	<b>8am-3pm</b>
<b>Thursday</b>	<b>8am-2.30pm</b>

### 2013 TORO AGCSA GOLF CHAMPIONSHIPS AND DINNER

**Where:** Twin Waters Golf Club

**When:** Sunday 23 June (11.45am-8pm)

**Details:** Players must be at the golf club by 11.45am for a 12pm shotgun start. There is a short 800m walk from Novotel Twin Waters Resort to the club or catch the complimentary shuttle between 11.15am and 11.30am from the resort main entrance. Following the golf, drinks and nibbles will be served on the terrace followed by the official Toro presentation dinner. Shuttles will return to the resort from 8pm.

### 2013 AGCSA TRADE CHALLENGE

**Where:** Twin Waters Golf Club

**When:** Monday 24 June (11.45am-5.30pm)

**Details:** Players must be at the golf club by 11.45am for a 12pm shotgun start. There is a short 800m walk from Novotel Twin Waters Resort to the club or catch the complimentary shuttle between 11.15am and 11.30am from the resort main entrance. Following the golf drinks and nibbles will be served on the terrace followed by trophy presentations.

### BAYER WELCOME RECEPTION

**Where:** Eucalypt Clearing, Novotel Twin Waters Resort

**When:** Monday 24 June (7.30pm-10pm)

**Details:** Open to all fully registered delegates and ticket holders, this year's theme is 'All things Aussie', so come along in your flannel shirt, denim, thongs, cricket whites, AFL guernsey or Wallabies jumper. To be held in the Eucalypt Clearing which is located just two minutes from the resort main entrance (see Twin Waters resort map on the conference app for exact location).

### HAWKER BEACH MARKET

**Where:** Lorikeet Beach, Novotel Twin Waters Resort

**When:** Tuesday 25 June (7pm-9pm)

**Details:** Open to all fully registered delegates, a variety of food stalls will serve different styles of food and drinks. To be held at Lorikeet Beach which is located a short walk around the lagoon from the main resort (see Twin Waters resort map on the conference app for exact location). Delegate lanyards must be worn.

### 29TH AUSTRALIAN TURFGRASS CONFERENCE TRADE EXHIBITION

**Where:** Wandiny Room, Novotel Twin Waters Resort

**When:** Wednesday 26 June (9am-5pm) and Thursday 27 June (9am-2pm)

**Details:** This year's trade exhibition will feature around 50 of the industry's leading turf management companies. Entry to the trade exhibition is free. See later in this guide for a full listing of companies exhibiting. The trade exhibition cocktail opening will be held from 4pm-5.30pm on Tuesday 25 June.

### 2013 AGCSA AGM

**Where:** Mudjimba Rooms, Novotel Twin Waters Resort

**When:** Wednesday 26 June (3.15pm – please note earlier time than previous years)

**Details:** Open to all current financial AGCSA members. Two board director positions will be up for election.

### SYNGENTA PRESIDENT'S DINNER AND 2013 AGCSA AWARDS

**Where:** Wandiny Room, Novotel Twin Waters Resort

**When:** Thursday 27 June (from 6.30pm-11.30pm)

**Details:** To cap off a week of camaraderie and education we have planned a fantastic night including a short presentation ceremony for the 2013 AGCSA Awards. The dinner is an optional extra for all delegates. **Dress code:** Semi-formal, dress pants and collard shirt (jacket and tie optional).

### POST CONFERENCE TURF TOUR

**When:** Friday 28 June (9am-3pm)

**Details:** Venues TBC at the time of this edition going to print. Possible stops include Horton Park Golf Club, Stockland Stadium and a local turf farm.

**Disclaimer:** The above event information was correct at the time of this edition of ATM going to print. Any changes will be announced during the conference sessions or notified through the official conference app (see opposite).





# DOWNLOAD THE OFFICIAL 29TH AUSTRALIAN TURFGRASS CONFERENCE APP

The AGCSA has launched a brand new smart phone/tablet app for the 29th Australian Turfgrass Conference and Trade Exhibition at Twin Waters. The app is completely FREE and is compatible on both Apple and Android devices. To download the conference app simply type '2013 AGCSA Turf Conference' into your app store search engine and install.

The app contains all the relevant information that you will need to know about this year's conference including the education programme, trade exhibition and the many related social events. There are 14 icons on the app, with the most important being displayed on the front page (see screenshot right), and what follows is a brief explanation of the information contained in these areas.

## PROGRAMME

The app contains an up-to-date and complete programme which includes all the education sessions which can be viewed either by day or by stream. 'Programme by day' encompasses all the education and events including the session time and location, a brief synopsis or relevant event details and information about the speaker/presenter. 'Programme by stream' allows you to view the education component by Jacobsen workshops, Plenary sessions, Golf Stream or Sportsfield Stream.

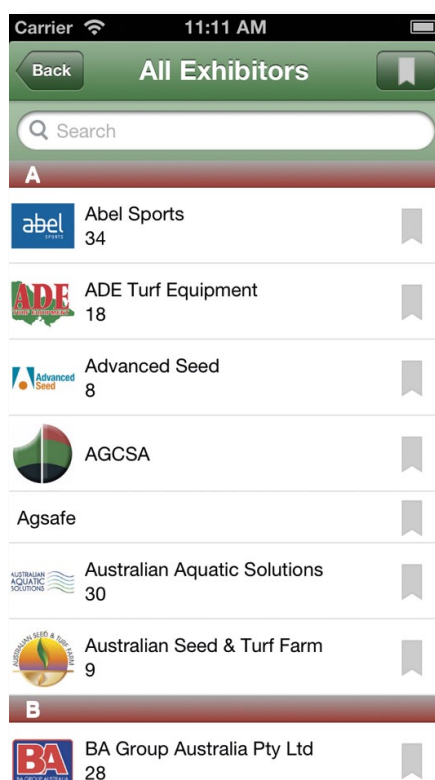
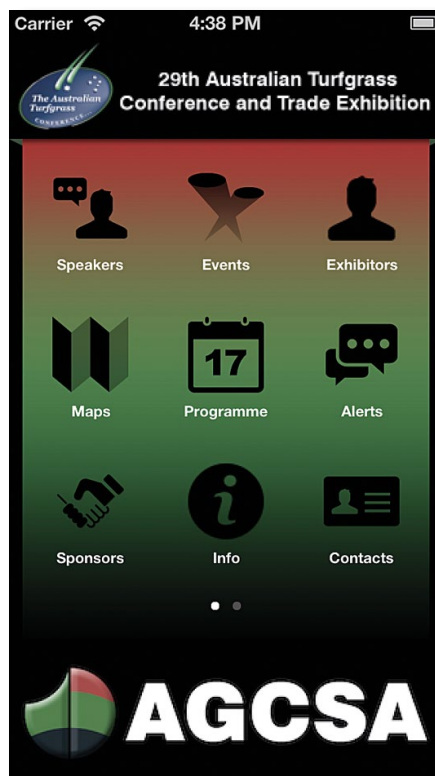
You can also check which sessions will be starting in the next hour by selecting the 'Happening Now' option under the Programme icon. You can bookmark the sessions that interest you, give them a star rating and take notes. To take notes of a particular session, click on the session within the programme, scroll to the bottom of the synopsis and touch the 'My Notes' link and start typing. All notes can then be accessed through the Notes icon.

## SPEAKERS

Under the **Speakers** icon there is a list of all speakers in alphabetical order (by surname) which you are able to bookmark for future reference. When you select a speaker you can see their photo, a biography, the sessions that they are in and their contact email address. From here you can link to the sessions that the speaker is in.

## EVENTS

This year there is an **Events** icon under which details of all the associated social events are



provided, including the Toro AGCSA Golf Championships, Bayer Welcome Reception, the Partners' Programme, Hawkers Beach Market and Syngenta President's Dinner to name a few. These events are also listed in events under the 'Programme by day' and provide details of time, location and any other relevant information.

## MAPS

Within the **Maps** icon there is an interactive map of the Twin Waters area, a map of the Novotel Twin Waters Resort, the complex floor plan and a map of the trade exhibition layout. Visitors will be able to navigate to and around the resort easily once they have downloaded the app and they will even be able to find where their favourite exhibitors are located at the trade exhibition. You can link to the exhibitors' websites by tapping on their booth on the trade show map.

## EXHIBITORS AND SPONSORS

Those companies exhibiting at the trade exhibition are contained behind the **Exhibitors** icon and are listed alphabetically and by category (e.g.: machinery, irrigation, chemicals etc). The major event sponsors for this year's conference are also listed separately here. Members of the AGCSA Partner Recognition Programme are listed in their respective levels under the **Sponsors** icon.

## CONTACTS

To share your details with other conference delegates, be sure to enter your information within the **Contacts** icon. Touch 'Edit your contact info' to input your contact details which will then be displayed in the 'Attendees' list. You can elect to share your details with other delegates and trade members when they make a request.

## ALERTS, INFO AND SEARCH

For general information about the event, the app and the AGCSA, click on the **Info** icon. Within this are conference registration desk times, the AGCSA's principal conference staff contacts and trade exhibition hours. To search for any information type keywords into **Search**. The AGCSA will also send out reminders during the conference which will then be stored behind the **Alerts** icon. To ensure that you receive these important alerts, please allow 'receive push notifications' when you download the app. 📱



# 2013 AGCSA GRADUATE OF THE YEAR AWARD



## NSWGCSA

**Charles Dunlop**

**Duntryleague Golf Course**

The NSWGCSA Vince Church Graduate of the Year Award winner for 2012, Charles Dunlop hails from Orange, NSW where he works at Duntryleague Golf Course. Dunlop beat fellow finalists Jacob Pease (Pacific Dunes GC), Mitchell May (Mona Vale GC), Luke Bubb (New Brighton GC) and Louie Sutherland (Gerringong GC) to represent the NSWGCSA in the national final.

Employed by Fairways Course Management and working under company director/course superintendent Grant Barrett, Dunlop has been at Duntryleague since March 2010, during which time he completed his Certificate III in Turf Management through TAFE Western. He has subsequently enrolled in the Certificate IV in Turf Management course which he is also undertaking through TAFE Western.

A pennant-level golfer who plays off 0.4, Dunlop's role at Duntryleague is very hands-on. He is the primary chemical applicator (fertilisers and pesticides) and is in charge of all irrigation repairs. Dunlop has also been acting golf course superintendent in the absence of his boss and is also the club's senior landscaper responsible for new plantings, establishing new garden beds and rockeries.

Dunlop has very definite ideas about his future aspirations and after completing his training in Orange wants to expand his knowledge by heading to the US and working on a US PGA Tour-standard course. He is also keen to head to Asia and the Middle East to work on new golf course developments during the construction and grow-in phases. Since August 2008, Dunlop has also been a rifleman with the 1st/19 Royal New South Wales Regiment, based in Orange.



## GCSAQ

**Jacob Freeman**

**McLeod Country Golf Club**

Twenty-two-year-old GCSAQ Apprentice of the Year winner Jacob Freeman has been employed at McLeod Country Golf Club since 2009 and it's fair to say he has endured an interesting apprenticeship. The course was badly impacted by the 2011 Brisbane River floods and again on Australia Day 2013, with Freeman heavily involved in recovery efforts initially under former superintendent Peter Daly and current superintendent Phil Boag.

## PRESENTED IN PARTNERSHIP WITH TORO AUSTRALIA

The AGCSA Graduate of the Year Award, presented in partnership with Toro Australia, is now into its 18th year. It honours the top golf course turf management apprentice in the country, with the winners from the respective state superintendent association Graduate of the Year programmes contesting the national. NSW has tasted great success in this award over the years and in 2012 Dave Canterbury continued that trend by becoming the eighth recipient from the state since the award was first struck in 1996.

Six finalists converged on Melbourne in early May for this year's national award judging where they were required to make a presentation about themselves and their turf management career to date. They were also asked to outline their future aspirations in the turf industry as well as answer a series of technical questions to test the skills and knowledge they have learned during their studies.

The national winner will be announced alongside the other 2013 AGCSA Award recipients during the Twin Waters conference and will come from the following field of finalists...

Having completed his Certificate III through Brisbane North Institute of TAFE, Freeman has expanded his sights and is nearing completion of a business degree in Human Resources and Administration through the University of Southern Queensland. A handy golfer who plays off a 1 handicap, golf has been a major part of his life for the past 13 years. As well as working at McLeod, he is a member at nearby Gailes Golf Club and resides at Brookwater.

During his time at McLeod Freeman has helped with the installation of a new irrigation system (2011), helped prepare the course for the 2010 Gladys Hays national amateur event and has been heavily involved in course works including tee, bunker and waterway reconstruction. This year he also developed a weed eradication plan for the club.

Freeman's future interests vary but he is excited about the multitude of opportunities that exist not only within the turf industry but

the golf industry as a whole, in particular course design, soil and nutrient analysis and course and club management.



## SAGCSA

**Matthew Gates**

**West Lakes Golf Club**

Gates will be aiming to be the first graduate from South Australia to take away the national title. The 20-year-old has served his apprenticeship at West Lakes Golf Club under the tutelage of course superintendent Stuart Gillespie, whose son went to school with Gates. When Gillespie offered him an apprenticeship at the Adelaide-based club, Gates seized on the opportunity. Being a keen cricketer and footballer, the job has given Gates the chance to further his interest in preparing high quality turf surfaces.

Gates completed his studies through Urrbrae TAFE and pipped classmate Chris Clark from Kooyonga Golf Club for the SAGCSA Graduate of the Year Award earlier in the year. As well as trying to learn as much as he can during his time at West Lakes,

## 2013 STA SPORTS TURF

In 2011 the Sports Turf Association, in conjunction with sponsor Toro, struck the STA Sports Turf Graduate of the Year Award to recognise its outstanding apprentices.

Like the winner of the AGCSA Graduate of the Year, the recipient of the STA award will get the opportunity to attend the Winter School of Turf Management at the University of Massachusetts courtesy of Toro. They will also get the chance to visit the 2014 GCSAA Golf Industry Show in Orlando, Florida. In 2013, three finalists will vie for this opportunity of a lifetime...



## STA NSW

**Andrew Spicer**

**Wyong Shire Council**

Spicer has worked with Wyong Shire Council since 2010 and has worked just about every oval in the Wyong Shire including AFL, rugby league, soccer and cricket. His work involves looking after the fields and their surrounds as well as some building maintenance. He studied at Kurri Kurri TAFE and achieved excellent results and enjoyed the experience of working on different surfaces.

Spicer loves the freedom of working outdoors and is very sport oriented, playing



Gates is keen to head overseas and take up an internship through the Ohio State Program to broaden his turf management knowledge base.



## VGCSA

**Jarryd Graham**  
**Kew Golf Club**

Originally from Nhill, a small country town in western Victorian, Graham completed his education at Ballarat and Clarendon College in 2006. In 2008 he was employed as part of the ground staff at Allan Scott Park in Morphettville, SA before moving to Darwin to play football in the Northern Territory Football League during the 2008/2009 summer. While in Darwin, Graham worked at the Darwin Private Hospital where he became the head groundsman, taking care of all the lawns and gardens which is where his passion for the turf industry really took off.

Since returning to Victoria, Graham has been employed at the Kew Golf Club in Melbourne where he undertook his apprenticeship starting in June 2009. He successfully completed his studies in 2012 at Northern Melbourne Institute of TAFE and

has since started his Diploma of Sports Turf Management. Graham is a keen sportsman and currently plays football with Castlemaine in the Bendigo Football League and cricket with Royal Park Brunswick in the Victorian Turf Cricket Association.

Graham was awarded the VGCSA Graduate of the Year Award at the 2013 VGCSA AGM held at Kingston Heath Golf Club, beating home fellow finalists Kerrod Tuckett (Deniliquin Golf Club), Matthew Baker (Elcho Park Golf Club), John Emery (Phillip Island Golf Club) and Matthew Pollock (The Dunes).



## STA ACT

**Luke Jorgensen**  
**The Federal Golf Club**

Twenty-three-year-old Luke Jorgensen is a young man going places in the turf industry. He started his apprenticeship in 2009 under the guidance of Stephen Lording at The Federal Golf Club and more recently under new superintendent Mark Thompson.

Jorgensen's interest in greenkeeping came from his love of sport and the lifestyle that working outdoors provides, as well as his

keen interest in golf. He has been involved in a wide array of duties during his time at Federal including greens resurfacing and the establishment of couchgrass fairways from cool-season grasses, as well as the normal day-to-day jobs.

Jorgensen will shortly transfer across to Royal Canberra Golf Club as he is interested in the challenge of working on a cool-season grass course. He is presently studying the Diploma in Sports Turf Management. Luke was recently awarded the STA ACT Region Turf Apprentice of the Year and hopes in the future to have a long career in the turf industry.



## TGCSA

**Andrew Schindler**  
**Riverside Golf Club**

Andrew Schindler has the rare honour of being the first AGCSA Graduate of the Year finalist to represent Tasmania. Such has been Schindler's impressive performance during his apprenticeship that Tasmanian Skills Institute turf management coordinator Mark Potter (a former course superintendent at Claremont Golf Club in Hobart) had little hesitation in nominating him as the state's inaugural candidate.

One of only about 30 students undertaking turf management studies in Tasmania, Schindler completed his Certificate III while at Riverside Golf Club in Launceston. Since completing his apprenticeship he has moved across the Tamar River to join course superintendent Shane Knott at Mowbray Golf Club where he has taken on a position as a qualified greenkeeper.

Although completing most of his studies in Launceston, Schindler also had to travel to Hobart five times a year in order to undertake specific turf management components. Such dedication and the fact that he consistently produced excellent assignment work along with his impressive aptitude and work ethic, meant he was the standout student for 2012. Schindler is looking to further his studies once settling into his new role at Mowbray and is hoping to undertake the Certificate IV and Diploma courses in the future. 🌱

# GRADUATE OF THE YEAR AWARD

soccer and cricket and loves fishing. He is very passionate about his work and has ambitions to one day be a head greenkeeper at a major stadium.



## STA VIC

**Christopher Deppeler**  
**Greener Pastures**

Deppeler started his apprenticeship at Ocean Grove Bowling Club in 2009 and worked there until 2011 when he was offered a transfer of his apprenticeship to bowling green contractor Greener Pastures. He believed that this opportunity would give him more exposure to different turf situations enabling him to develop his skills and knowledge.

Deppeler has also worked part time for Highton Cricket Club preparing the main turf wickets, Eastern Park Croquet Club and also back at Ocean Grove Bowling Club. He loves the challenges of his work and feeling of achievement when the work is done.

Since completing his apprenticeship he has started the first year of the Diploma of Sports Turf Management. Deppeler aspires to be in charge of an elite sports turf facility, but in the short term will continue to develop his skills and knowledge.



## STA QLD

**Ryan Tracey**  
**Landscape Solutions**

Tracey started his apprenticeship in 2009 with Professional Greens Management and worked with them up until March 2013. He is now working with Landscape Solutions as a site manager at a retirement village where he is responsible for all grass and garden areas within the complex. During his apprenticeship he assisted in the reconstruction of a bowling green and several renovations.

Tracey studied at Brisbane North Institute of TAFE, Grovely Campus. He enjoys his work as he is able to take the project from the planning stage through to completion to the client's satisfaction. Tracey's long-term ambition is to progress to a superintendent role at a major sports stadium or golf course. He is planning on completing his Diploma in Sports Turf Management.

## STA SPORTS TURF GRADUATE OF THE YEAR AWARD – PAST WINNERS

**2012 – Rory Bairnsfather-Scott** (WACA, WA); **2011 – Rebecca Dynon** (Racing Victoria, VIC)

## AGCSA GRADUATE OF THE YEAR AWARD – PAST WINNERS

**2012 – Dave Canterbury** (Kiama Golf Club, NSW); **2011 – Dan Oswin** (Novotel Forest Resort, VIC); **2010 – Adam Shields** (Casino Golf Club, NSW); **2009 – Wade Williams** (Federal Golf Club, ACT); **2008 – Chris Thompson** (Maclean Golf Club, NSW)



# Timetable - Golf

## SUNDAY

**2pm - 4pm** - Registration booth open

**12pm - 5.30pm** - 2013 Toro AGCSA Golf Championships and post-round refreshments - Twin Waters GC



**5.30pm - 8pm** - Toro Golf Dinner

## MONDAY

**AGCSA JACOBSEN WORKSHOPS**



**9.30am - 4pm**

**Agronomics with Dr Thom Nikolai**  
Balancing budgets, turfgrass health and customer satisfaction

OR

**11am - 5pm**

**Gary Lisbon**

How to photograph your golf course

\*\* At the time of printing the photography workshop was full. Both workshops include lunch.



**7.30pm - 10pm**  
**BAYER**  
**WELCOME RECEPTION**

## TUESDAY

**PLENARY - MUDJIMBA ROOMS**

**8.30am - 9.10am**

**Dr Geoff Allen** - Men's health

**9.10am - 9.50am**

**John Illingworth** - Wetting agents and surfactants

**9.50am - 10.30am**

**John Neylan** - Using online databases to research turf problems

**10.30am - 11am - MORNING TEA**

**11am - 12.30pm**

**Dr S Livesley and Caragh Threlfall**  
- The University of Melbourne Golf Course Biodiversity Project report

**12.30pm - 1pm**

**2013 AGCSA Awards**



**1pm - 2pm - LUNCH**

**2pm - 2.40pm**

**Terry Muir** - Off label liabilities

**2.40 - 4pm**

**Chemical Use Forum** - Ben Tilley, Stephen Bernhard, TBC

**4PM-5PM TRADE SHOW OPENING**  
includes light refreshments

**7pm - 9pm**

**HAWKER BEACH MARKET NIGHT**

## WEDNESDAY

**MUDJIMBA ROOMS**

**8.30am - 9.10am**

**Stephen Pitt and Brian Thorburn** - The state of golf in Australia

**9.10am - 9.50am**

**Andrew Peart** - AGCSA Benchmarking Project outcomes

**9.50am - 10.30am**

**Pat Pauli**

The Horton Park saga

**10.30am - 11am - MORNING TEA**

**11am - 12.30pm**

**Vegetation Management Workshop** - Paul Barber, Darren Wilson and Adam Robertson

**12.30pm - 2pm - LUNCH AND TRADE SHOW**

**2pm - 3pm**

**Dr Thom Nikolai** - The top 10 changes in golf course maintenance in the past 25 years

**3pm - 5.30pm - TRADE SHOW**

**3.15pm - 4.15pm - 2013 AGCSA ANNUAL GENERAL MEETING**

**6pm - 9pm**

**TORO PUB - LILY'S ON THE LAGOON RESTAURANT**

**N.B. Correct at time of publication.**  
Timetable subject to change

## THURSDAY

**MUDJIMBA ROOMS**

**8.30am - 9.10am**

**Colin Morrison** - Working at Deere Run during John Deere Classic

**9.10am - 9.50am**

**John Neylan** - Protecting your arse!  
The importance of good record-keeping

**9.50am - 10.30am**

**Dr Jim Hull** - Interpreting soil tests. How accurate are they?

**10.30am - 11.30am - MORNING TEA**

**11.30am - 1pm**

**Golf Course Management in QLD**  
**Ben Tilley** - Warm-season grasses  
**Dr Brett Morris** - Management in the tropics  
**Robin Doodson** - Reconstruction

**1pm - 2pm - LUNCH AND TRADE SHOW**

**2pm - 4pm**

**Human Resource Management** - Roles, position descriptions and staff reviews. Team discipline, morale and conflict resolution. The importance of policies and procedures.



**6.30pm - 11.30pm**  
**SYNGENTA PRESIDENT'S DINNER**

## FRIDAY

**POST CONFERENCE TURF TOUR**

**9am - 3pm**

Venues were still to be determined at the time of printing. Possible venues include Pelican Waters Golf Club, Corbould Park Racecourse, Twin View Turf, Quad Park and Horton Park Golf Course development site

Turf Tour will only go ahead if there are adequate numbers. Further details on the venues will be publicised in The Cut, on the AGCSA website and through the conference app.



# Timetable - Sportsfield

## SUNDAY

**2pm-4pm** - Registration booth open

**12pm - 5.30pm** - 2013 Toro AGCSA Golf Championships and post-round refreshments - Twin Waters GC

**TORO**

**5.30pm - 8pm** - Toro Golf Dinner

## MONDAY

**AGCSA JACOBSEN WORKSHOPS**

**JACOBSEN**

**9.30am - 4pm**

**Agronomics with Dr Thom Nikolai**  
Balancing budgets, turfgrass health and customer satisfaction

**OR**

**11am - 5pm**

**Gary Lisbon**

How to photograph your golf course

\*\* At the time of printing the photography workshop was full. Both workshops include lunch.



**7.30pm - 10pm**

**BAYER**

**WELCOME RECEPTION**

## TUESDAY

**PLENARY - MUDJIMBA ROOMS**

**8.30am - 9.10am**

**Dr Geoff Allen** - Men's health

**9.10am - 9.50am**

**John Illingworth** - Wetting agents and surfactants

**9.50am - 10.30am**

**John Neylan** - Using online databases to research turf problems

**10.30am - 11am - MORNING TEA**

**11am - 12.30pm**

**Dr S Livesley and Caragh Threlfall**

- The University of Melbourne Golf Course Biodiversity Project report

**12.30pm - 1pm**

**2013 AGCSA Awards**



**1pm - 2pm - LUNCH**

**2pm - 2.40pm**

**Terry Muir** - Off label liabilities

**2.40pm - 4pm**

**Chemical Use Forum** - Ben Tilley, Stephen Bernhard, TBC

**4PM-5PM TRADE SHOW OPENING**  
includes light refreshments

**7pm - 9pm**

**HAWKER BEACH MARKET NIGHT**

## WEDNESDAY

**MAROOCHY ROOM**

**8.30am - 9.15am**

**Dr Thom Nikolai** - Environmental stewardship in the green industry

**9.15am - 10am**

**Terry Muir** - Chemical WHS and environmental risk management - when to say NO!

**10am - 10.30am - MORNING TEA**

**10.30am - 11.10am**

**Matt Roche** - Traffic tolerance of warm-season turfgrass under community sportsfield conditions

**11.10am - 11.50am**

**John Neylan** - Protecting your arse! The importance of good record-keeping

**11.50am - 12.30pm**

**Stephen Bernhard** - Healthier turf at a reduced cost

**12.30pm - 2pm - LUNCH AND TRADE SHOW**

**2pm - 3.30pm**

**Peter Semos** - The top 10 changes in sports ground maintenance in the past 25 years

**3.30pm - 5.30pm - TRADE SHOW**

**3.30pm - 4.30pm** - STA National Executive Meeting (proposed)

**6pm - 9pm**

**TORO PUB - LILY'S ON THE LAGOON RESTAURANT**

## THURSDAY

**MAROOCHY ROOM**

**8.30am - 10.30am**

**Sportsfield Management in QLD**  
**Paul Sanson** - Stadium management  
**Brendan Ott** - Toowoomba Grammar TBC

**10.30am - 11.30am - MORNING TEA**

**11.30pm - 1.00pm**

**Vegetation Management Workshop**  
- Paul Barber, Nathan Tovey and Shane Biddle

**1pm - 2pm - LUNCH AND TRADE SHOW**

**MUDJIMBA ROOMS**

**2pm - 4pm**

**Human Resource Management** - Roles, position descriptions and staff reviews. Team discipline, morale and conflict resolution. The importance of policies and procedures

**syngenta**

**6.30pm - 11.30pm**

**PRESIDENTS DINNER**

## FRIDAY

**POST CONFERENCE TURF TOUR**

**9am - 3pm**

Venues were still to be determined at the time of printing. Possible venues include Pelican Waters Golf Club, Corbould Park Racecourse, Twin View Turf, Quad Park and Horton Park Golf Course development site

Turf Tour will only go ahead if there are adequate numbers. Further details on the venues will be publicised in The Cut, on the AGCSA website and through the conference app.

**N.B. Correct at time of publication.**  
**Timetable subject to change**



# 2013 Australian Turfgrass Conference Trade Exhibition

**26-27 June 2013, Wandiny Room, Twin Waters Resort**

The Twin Waters trade exhibition will bring together the leading service providers and product manufacturers from across the Australian turf industry. Read on to find out who will be exhibiting on the Sunshine Coast and some of the products and services that will be on display.

## ABEL SPORTS

### Stand 34

Abel Sports is a leading manufacturer and supplier of goal post and sports ground systems for major sporting stadiums, councils, schools and sporting clubs throughout Australia. Abel Sports manufacture and install goal posts for AFL, rugby league, union, soccer and hockey. All goal posts are designed to be easily and safely installed/removed and be OH&S compliant.

AFL and rugby goals are available in all lengths up to 16m and come with ground tubes, base plates or hinges. Soccer and futsal goals are available for either junior or senior level. Semi-permanent or portable soccer goals are also available with rear posts and hinged base supports for nets. Abel Sports also manufactures rugby/soccer combo goals approved by both codes. Goal post storage systems are also available for both onsite and offsite storage.

Other Abel Sports products include coaches boxes and interchange benches, goal post pads, boot cleaners, line marking paints and goal post lifting systems. Abel Sports also design and install to engineers specifications barrier/safety netting systems for AFL, soccer and cricket grounds. Abel Sports not only guarantees all its manufactured products (five years), we have our own team of installers and guarantee all installations as well.

## ADE TURF EQUIPMENT

### Stand 33

ADE Turf Equipment is proud to distribute **Shibaura** golf and turf care products. IHI Shibaura Machinery Corporation is a leader in the design, manufacture and engineering of diesel engines, compact tractors, golf and turf care products and fire fighting pumps. Shibaura has been an OEM supplier for decades to such famous brands as Case New Holland, Caterpillar, Perkins, Yanmar,



Hustler and Mitsubishi. Of special interest is the **Shibaura SG280E Slope Mower**, CE certified for operations on slopes to 30 degrees. Commercial rotary cut mowers and speciality golf course reel mowers complete the line-up.

## ADVANCED SEED

### Stand 8

Advanced Seed is a leading importer and provider of turfgrass seed and related products for both the commercial and retail markets throughout Australia. Our product range includes seed varieties from world leaders in breeding **Seed Research**, **Pickseed** and **DLF Seed** along with **Evergreen Turf** covers, **Earthway** equipment and water treatment products.

The proprietors and management of Advanced Seed collectively have over 100 years of experience in the seed and turf industry. This has contributed to Advanced Seeds' market positioning as one of the leading suppliers of turf seed products in Australia. Advanced Seed strives to import



only the finest quality product with particular emphasis on those suited for and trialled Australian conditions. Our products are used by many of the leading racecourses, golf courses, turf farms, local governments and sporting facilities throughout Australia.

Advanced Seed is a wholesale supplier dealing through a group of specialised distributors located throughout Australia. Advanced Seed aims to be the best supplier in the industry. To achieve this, the company maintains ample levels of quality stock with modern blending facilities and utilises labelling standards endorsed by the Australian Seed Federation. Customer satisfaction is a priority and regular monitoring of services and standards is undertaken.

## AGSAFE

### Stand 29

Chemical users across Australia can take advantage of two fantastic industry stewardship programs that can help them dispose of both their out-of-date ag-vet chemicals and empty containers.



## AGCSA

### Stand 49

The official host of the 29th Australian Turfgrass Conference, the Australian Golf Course Superintendents' Association is committed to the ongoing professional development and support of all those involved in the golf course maintenance and turf management industry. With a membership of over 1100, the AGCSA is growing in size and offers a range of unique services to help superintendents, turf managers and their staff who are seeking access to resources, training and networking opportunities.

Visit the AGCSA stand to experience first-hand the extensive range of services and how they have been tailored to meet



the needs of people working in the golf course maintenance industry. Copies of the AGCSA's flagship and award-winning publication, **Australian Turfgrass Management Journal**, will be available, while merchandise and turf text books will be for sale at discounted prices.

New membership applications from delegates are always welcome and these can be lodged and processed at the stand. Current members can renew their membership, update their contact details and arrange access to the members-only section of the AGCSA website. AGCSA Board members and AGCSATech agronomist **Andrew Peart** will be present throughout the show to help out with any queries.



## BAYER (ENVIRONMENTAL SCIENCE DIVISION)



### Stand 39

Bayer is once again a Silver Partner of the Australian Turfgrass Conference and is sponsoring the Welcome Reception on Monday 24 June. Visit the Bayer stand (39) to hear about Bayer's new business partnership programme **Turf Amplify** and to learn how you can access free training courses such as WH&S, pesticide application, HR and IT for you and your staff members.

In 2013 Bayer celebrates its 150th anniversary. "Bayer can look back on a long and highly successful history as an inventor company," chief executive Dr

Marijn Dekkers said. "In the past 150 years, Bayer inventions have time and again helped improve people's quality of life. This great tradition is also our commitment to the future, entirely in line with our mission of 'Bayer: Science for a Better Life'."

Bayer will also be featuring its **Stressgard™** formulation technology (already available in the fungicide Signature). Stressgard is an advanced formulation technology developed by Bayer that positively affects turf physiology, helping the turf plant to more effectively manage the stresses of a golf course. Information sheets on Stressgard will be available, along with all other turf management product brochures. The Bayer team looks forward to seeing you!

The drumMUSTER service was first established in 1998 and works in conjunction with local tips and waste transfer sites to arrange the collection and recycling of pre-cleaned, empty chemical containers. Once you find your local collection site and clean your containers, simply call your local collection site, bring them in during the relevant opening hours and we will do the rest. To find out more about the programme or to discover your nearest collection site, go to [www.drummuster.com.au](http://www.drummuster.com.au) or call 1800 008 707.

Leaving left-over obsolete chemical on your property can create a variety of potential dangers. ChemClear started in 2004 and is responsible for the collection and disposal of your unwanted, inherited or out-of-date chemical products. We liaise with shire councils to arrange state-wide collection runs, which are set up according to demand. To get started, give us a call or 1800 008 182 or head online at [www.chemclear.com.au](http://www.chemclear.com.au) to register and begin taking an inventory of the turf management chemicals you wish to dispose of.

## AUSTRALIAN AQUATIC SOLUTIONS



### Stand 30

Australian Aquatic Solutions specialises in the management and maintenance of critical waterways such as lakes, dams, rivers and irrigation channels. From one-off jobs for individual customers to ongoing waterway management for large organisations like Ballarat City Council, Parks Victoria and Vic Urban, we work on a diverse range of small and large projects throughout Australia. As well as providing expert advice on managing a variety of waterway issues, we also offer the

following professional services: aquatic weed harvesting, aquatic weed spraying, clearing of waterways, dredging, algae control, water testing.

Environmental sustainability is at the core of everything we do. Our activities are conducted in a way that not only protect the surrounding environment, but also produce flow-on benefits wherever possible. We're dedicated to protecting the health and safety of our employees, contractors, clients and the general public. Workplace OH&S is a priority, including staff training and regular monitoring of our practices, plus the implementation of a strict maintenance program for all our vehicles and equipment.

We use a large range of conventional aquatic vessels and equipment including the Truxor 5000 amphibious machine. This machine enables us to operate in shallow, hard to reach places, which complements our larger machines.

## AUSTRALIAN SEED & TURF FARM



### Stand 9

The Australian Seed & Turf Farm management collectively has over 100 years of experience in the turf industry. This has contributed to our position as one of the leading suppliers of instant turf to the commercial and domestic markets. Our location at Carrum Downs also allows us to service clients promptly to suit their project timelines.

Major projects we have proudly been involved with include St Kilda Football Club's two training grounds at Seaford (turfed with Santa Ana) and Royal Melbourne Golf Club where we supplied fine fescue (greens surrounds) and Santa Ana (tees). New expansion plans have seen the farm increase

from 65 hectares to approximately 100ha. Larger areas of bentgrass turf and fine fescue are now grown on fumigated sandy loam and on USGA specified sand. Consignment growing is also an option for special variety requirements.

Santa Ana couch, Kenda kikuyu (new, licensed male sterile variety) great for sports fields and Matilda premium soft leaf buffalo make up some of the other grasses we grow. We have also added a turf washing plant to the farm. We welcome all enquiries to [www.seedandturf.com.au](http://www.seedandturf.com.au) or call farm manager George Sandic on (03) 9772 7632. We guarantee service second to none.

## BA GROUP AUSTRALIA



### Stand 28

BA Group Australia is a manufacturer of spraying equipment, established in 2008 with a dedicated team encompassing years of experience in the ag spraying industry. Our head office is based in Geelong, Victoria and we also have a warehouse in Toowoomba, Queensland. Together we distribute a large range of sprayers and accessories, creating spraying solutions for the turfgrass industry.

We have a large range of trailed and skid mount units, our new **Greens keeper** walk behind sprayer especially designed for green and bunker surrounds. We also distribute **TeeJet** products and can provide you the latest info on nozzle technology. We provide a custom build service as well so give us a call any time to discuss your spraying needs with one of our sprayer specialists. Keep your spraying on course with BA Group Australia.

## BECKER UNDERWOOD



### Stand 27

As a leading supplier to the turf industry, Becker Underwood produces an innovative array of spray indicators, turf paints, lake colourants and an ever-growing line of turf products. Turf, aquatic and vegetation management professionals have unique product needs. Golf course superintendents and sports turf managers turn to Becker Underwood for solutions to maintain and enhance the aesthetic characteristics of the properties under their management.

Our advanced colorant technologies provide long-lasting green colour on natural turf grasses while our premium quality soil wetting agents help effectively manage and conserve water. Becker Underwood's aquatic colourants and biological clarifiers enhance the appearance of recreational and ornamental water features, improving visual appeal and community enjoyment at some of the world's most famous venues. High-



## BROWN BROTHERS ENGINEERS



### Stand 11

Brown Brothers Engineers Australia Pty Ltd is an importer and distributor of Lowara pumps and pumping equipment, with sales offices in Melbourne, Sydney and Brisbane. Lowara pumps were established in Vicenza, Italy in 1968 and it is part of Xylem Inc., a global engineering and manufacturing company. Lowara specialises in the manufacture of premium quality pumps and fluid handling equipment and is recognised worldwide for quality, efficiency and reliability.

Brown Brothers Engineers specialises in the design and fabrication of purpose-built booster systems particularly for golf

courses in both New Zealand and Australia. Many of these booster systems include a microprocessor pumping system controller, but it does more than just change the speed. It actually manages the performance of the pump to match a wide range of system conditions and requirements.

The **Hydrovar** software is designed specifically for centrifugal pump operation, control and protection. It can be set up to protect the pump for operating under various unfavourable conditions, e.g.: cavitation, operating against a closed head, low NPSH etc. The Hydrovar provides the golf course superintendent with flexibility of watering when required with substantial savings on installation, power usage and maintenance.

strength spray pattern indicators help turf management professionals ensure precise, cost-effective applications of weed control.

Some of our innovative turf and specialty product brands that bring value to our customers are: **Green Lawnger**® turf colourants, **Turfmark**® blue spray pattern indicators, **Lake Colourant WSP**® lake and pond colourant, **Lakepak**® algae and aquatic plant control; and **Wettasoil**™ non-ionic soil wetting agent.

## BERNHARD AND CO



### Stand 48

Bernhard and Company is one of the world's most influential forces in the presentation and quality of turfgrass. The company manufactures and distributes worldwide a range of sharpening systems designed to maintain today's sophisticated mowing machines in perfect cutting condition. In the USA Bernhard grinders are in 75 of the top 100 golf courses and in over 65 of the world top 100 golf courses. There has to be a reason why.

Bernhard is at the forefront of 'non-contact cutting', which is effectively the difference between trimming each blade of grass with a scalpel as opposed to tearing the top off by hand. The Express Dual and Anglemaster system ensures that golf courses can benefit from a cleaner cut, minimising the damage to turf and improving turf health, disease and drought resistance and ultimately improving the playing conditions for golfers.

## COLIN CAMPBELL (CHEMICALS)



### Stand 17

Come and visit the Colin Campbell stand during the week to view a range of innovative turf products:

- **Proactin**: Not your ordinary bio stimulant,

Proactin is a high concentrate amino acid designed to strengthen your turf during times of heat, drought and disease stress;

- **DewCure**: For dew suppression and frost protection product for turf; and
- **Monstar**: A new active ingredient and fungicide resistance group to control fairy ring, with other disease control measures currently under development.

Along with Proactin, we will be providing updated work on DewCure and Monstar and information on our existing product range.

Social media is becoming more popular in everyday life and we will be demonstrating new tools and smartphone and tablet apps you can use to assist with your daily turf management regimes. You can keep up to

date with updates and information in the turf world before and during the show on our blog [www.campbellturf.blogspot.com](http://www.campbellturf.blogspot.com) or follow us at [twitter.com/campbellturf](https://twitter.com/campbellturf)

## DINT GOLF SOLUTIONS



### Stand 6

As the 2013 Australian Turfgrass Conference and Trade Exhibition approaches, it is a great time to review what has happened since the last conference. Dint has had an enormous year. The introduction of new products, refining of current product lines and the enhancement of features and service have resulted in outstanding growth.

Over the last 12 months, Dint's product range has grown by over 30 per cent as we expand to meet the needs of an ever-increasing customer base. In conjunction with that, Dint's customer base has also grown, expanding further and further across Australia, New Zealand and internationally. A fully revised website is up and running and there are some fantastic new features. The website now allows customers to register and then purchase online. Another feature is a media section where visitors to the site are able to view videos on key products... [www.dint.com.au](http://www.dint.com.au).

During the last 12 months, Dint also secured a number of major fit out jobs across Australia. Another huge year lies ahead for Dint and Anthony, Adam, Jon and Nathan look forward to catching up with you at the Dint stand and showing you all that Dint Golf Solutions has to offer.

## COUNTRY CLUB INTERNATIONAL



### Stand 3

Australia's leading supplier of premium golf course and range equipment and exclusive distributors for some of the world's leading product ranges including: **Par Aide**, **Duchell**, **Eagle One** and **Greenjoy** (golf course furniture and equipment); **ESD Waste2Water** (washdown systems); **Convault** and **Petro Industrial** (fuel storage); **Enviromist** and **Micron** (chemical sprayers); **Range Servant Sweden** (golf range equipment); **Redden** and **Nettex** (high safety netting).

## DAVID GOLF



### Stand 24

David Golf has been a household name to golf course superintendents and club managers for over 50 years. The company is one of Australia's largest suppliers of golf course hardware and practice equipment. At this year's conference David Golf will be showcasing the Fuelco range. **Fuelco** is an

innovative hydrocarbon storage, dispensing and transport solutions which is making its way into many golf courses and schools around the country.

Waterstax, the all-natural bioremediation wash water treatment system, is the environmentally responsible solution to wash water usage. It's a proven cost-effective, modular system which uses chemical-free technology but still effectively removing soils, greases, herbicides, pesticides and insecticides. Sweep-N-Fill returns to Turfgrass 2013. The Sweep-N-Fill will greatly reduce the time you spend maintaining your greens.

Since 1999, David Golf has been the industry leader in the manufacture and supply of custom made signage for the golf and turf industry, suitable for both indoor and outdoor applications. Material options include our eco-friendly recycled plastics, hardwood timbers as well as both cast and computer engraved metal such as aluminium, brass or bronze which can be set onto or into concrete or sandstone blocks.



## ECOWORKZ AUSTRALIA



### Stand 18

Ecoworkz Australia was formed in January 2009 and is the end result of years of research and development for a natural alternative to the use of chemical based products in the recreational and fine turf industry. These years of work have produced some unique patents and processes allowing development of a range of ecologically sensitive products beneficial to this and many other industries.

Our goal at Ecoworkz Australia is to develop strategic partnerships with like-minded groups to replace chemically based practices with natural organic products that are effective, efficient, safe and user friendly. With this in mind Ecoworkz Australia has these objectives;

- Provide effective natural alternatives to chemical products;
- Manufacture organic based products that are safe and non-toxic for both the environment and consumer;
- Manufacture products to minimise water usage and reduce pathogen dispersal into the environment;
- Develop the Ecoworkz brand to be the first choice for consumers for ecologically sensitive products.

All products within the Ecoworkz range utilise plant extracts, natural nutrients and mineral components from the earth and ocean to produce ecologically sensitive, non-toxic alternatives for a wide scope of industries. We have a product range which allows the complete management of golf, bowling, councils and sporting facilities.

## E-PAR GROUP



### Stand 19

The e-par Group is the leader in sports turf environmental and safety management, training and best practice. We are a strong Australian company with leadership, products, brands and great employees. Over the past 10 years of service to the industry we have an outstanding legacy of assets for us to build upon as we continue e-par's tradition and high standards for delivering tremendous value to our clients.

Our goal is to continually improve existing products and services that include our EMS, our safety system, our TEE training and our chemical management and IPM systems, and at the same time develop new, innovative products and services like our chemical application iPhone app and **PlatinumPLUS** that solve the important needs of the industry. Our strategy is clear – we want to enable our clients to focus their energy and time on achieving their aspirations and not be

## EVERGREEN TURF



### Stand 2

An Australian owned business now into its 30th year, Evergreen Turf has grown into one of Australia's leading turf and horticultural entities. Evergreen Turf provides products and services to sporting clubs, schools, builders, sports stadiums, golf courses, race courses and turf growers. Evergreen Turf offers consultation, design, construction and maintenance services, and turf reinforcing systems for race courses and sportsfields, landscaping services, and turf machinery.

Evergreen Turf understands the needs of the golfing industry which is why we proudly supply **StaLok®** reinforcing systems which include:

- **StaLok® Instant Play:** A turf replacement

consumed with keeping their environmental and safety compliance and training in check.

The e-par story is about continuing to invest in research and development and home-grown innovation to help our clients stay ahead of increasingly challenging compliance requirements. With our resources and know-how, we continue to meet those needs more than anyone.

## EQUIPMENT SOLUTIONS



### Stand 1

Equipment Solutions brings you world-leading technologies and design in turf machinery and equipment throughout Australia. Our national network of sales specialists are there to assist with all your equipment solutions with spare parts and after sales service a priority. World leading brands include:

- **AgriMetal** blowers, vacuums, sweepers and aerators;
- **Amazon** – six machines in one (mow, catch, mulch, dethatch, vac and roll);
- **BLEC** multi-seeders, BLEC-avator and Multi-Vator;
- **Dakota** – number one in topdressers and material handling equipment and tip trailers;
- **First Products** – Aera-vator plus seeders, Agri-Vator plus seeders, Verti-cutter/scarifiers;
- **Groundsman** – Sodcutters, 2/4 wheel drive and pedestrian corers;
- **Imants** Root Pruner, Earthquake/ Shockwave, Sandcat;
- **Lastec** Articulator mowers;
- **RGF** universal advance wash bay bio-reactor wash water recycle system;
- **Smoothroll** bowling green, tennis and cricket equipment, rollers, mowers, scarifiers and topdressers;

system which can be used immediately after installation– provides improved surface traction. Used at Randwick Racing Club, Etihad Stadium, Windy Hill (AFL training venue), City of Kingston and Kardinia Park (Geelong).

- **StaLok® Pathways:** Ideal for golf cart paths and driveways. Used at City Square Melbourne, Sydney Olympic site, Australian Garden at Cranbourne Botanic Gardens and Melbourne Zoo.
- **StaLok® Bunker Liner:** Ideal for golf bunkers, practice facilities and ranges. Used at Pebble Beach, California.

Evergreen Turf also undertakes warm-season grass conversions using line planting methods with past projects including Royal Melbourne and Commonwealth golf clubs.

- **Sumisoaker** lightweight, easy to manoeuvre water units;
- **Thatch-Away** – Supa-system, verticutter cassettes, scarifier, rotary brushes, greens roller, greens spiker and more;
- **Tru-Turf** golf green rollers; and
- **Wiedemann** – complete range of specialist turf maintenance products.

## EVERRIS AUSTRALIA



### Stand 13

Everris continues to deliver powerful and reliable turf brands like **Sierrablen**, **Sierraform GT**, **Sportsmaster** and **ProTurf** along with our ornamental and agricultural brands **Osmocote**, **Peters** and **Agroblen**. Everris is constantly delivering innovative nutritional programmes and complete solutions to the market. As the world leader in fertiliser manufacturing, Everris has a vast range of solutions to deliver reliable and exemplary results. Everris offers high quality products such as premium fertilisers, seeds and plant protection to deliver a solution for every turf manager's need.

Around the world, turf managers put their trust in Everris' advanced technology to deliver high-quality nutrition for optimum health, performance, endurance and aesthetic appearance. Dynamic products such as slow- and controlled-release fertilisers put the turf manager in total control. This allows for efficient and precise delivery of nutrients, specifically designed for your turf grass area. We also manufacture and supply economical short term release fertilisers in mini-prill sizes for quick response when needed.

With a strong and dedicated global team Everris is committed to maintaining balance and respect with the natural environment it is inspired by.



## GLOBE AUSTRALIA



### Stand 15

Globe is a long-term supporter of the Australian Golf Course Superintendents Association and has been a major participant in the trade exhibition for many years. It is a great opportunity for Globe to introduce new products and services to the Australian professional turf market. Equally it is important for Globe staff to spend time with their clients both at a business and social level.

This year Globe will have in attendance 15 of our key golf client managers to be among the clientele at AGCSA conference week. The Globe Turf Team is looking forward to discussing some of our new technologies and products that have become industry trialed and trusted. Make sure you drop past the Globe trade stand to see what new and exciting products and promotions we are offering. We wish all the delegates an enjoyable and worthwhile time at the Twin Waters AGCSA conference.

Globe is a national supplier of fertiliser, pesticides, soil wetters and various equipment to the professional turf market. Globe has service centres located in Queensland (Townsville, Brisbane and Gold Coast), New South Wales (Sydney, Newcastle and Wagga), Melbourne, Adelaide and Perth.

## E-Z-GO/AUGUSTA GOLF CARS



### Stand 10

E-Z-GO designs and manufactures light transportation vehicles, such as golf cars and utility vehicles, for consumer, commercial and government applications, including golf courses, municipalities, airports, resorts and factories. The industry leader in lean manufacturing techniques and electric vehicle technologies, E-Z-GO also manufactures the new Cushman line of golf and industrial material carriers. The **Cushman** new range has raised the bar in the industry in terms of hi-tech solutions with a durable rugged vehicle that you would expect only from Cushman.

## FLORATINE PRODUCTS GROUP



### Stand 21

Floratine Products Group has been designing and manufacturing high-grade nutrient products for the turf industry for over 21 years. With its technically trained and dedicated distribution team, Floratine works with turf managers to develop proactive plans that meet the turf management goals of each particular facility.

## 29TH AUSTRALIAN TURFGRASS CONFERENCE MAJOR SPONSOR

JACOBSEN



### Stand 40

Jacobsen® is committed to providing high-quality turf equipment to customers around the world. We produce walking greens, riding greens and fairway mowers, as well as utility vehicles, sprayers and aerators. We engineer our products to meet the needs of today's turfgrass professionals by asking for and listening to their feedback throughout the product lifecycle. You will find Jacobsen equipment at the finest golf courses and sports facilities world-wide.

Headquartered in Charlotte, NC, Jacobsen is a Textron company. We market

Floratine's product line is divided among four general categories – foliar, soil, biological and additional (specialty) products such as wetting agents. Our Floratine foliars allow the turf manager to deliver nutrients quickly and efficiently directly through the leaves, bypassing the root system to ensure your turf is receiving nutrients exactly when it needs them most. Our products are environmentally friendly and if used correctly can assist in saving water on your facility. Come and see us at Twin Waters to get a free can of **Perk Up**.

## HORTICULTURAL TRAINING



### Stand 14

Horticultural Training has been offering specialist horticulture and conservation and land management training since their establishment in 1991. They offer nationally accredited competency based training from Certificate I to Advanced Diploma level in a range of horticultural subjects including turf, parks and gardens, arboriculture, landscaping, nursery and conservation and land management.

All training is delivered onsite by knowledgeable, qualified trainers and tailored to the enterprise and learners' requirements. This is backed up by comprehensive learning resources compiled over many years. Learning material has been written by Horticultural Training specifically for the horticultural industry. This ensures their ability to deliver superior work based training. Training can be arranged for new and existing employees.

Additional services offered include agricultural chemical and distribution control licensing, AusChem training, chainsaw training, skills audits, competency assessments and recognition of prior learning.

and sell Jacobsen products through an extensive global distribution network and our sister company Ransomes Jacobsen, in the UK. Our skilled teams are trained to provide quality service and support for every machine we sell. We even have our own training facility – Jacobsen University – which provides service training for customers and dealers.

We take great pride in our business and are pleased to be the only turf equipment manufacturer to have achieved ISO 14001 Certification for environmental management. We know that the environment is the cornerstone of our business and yours, so we do everything we can to protect it in our facilities and in the field.

Horticultural Training is an accredited training provider, funding may be available to assist with your training requirements.

## HUNTER INDUSTRIES

### Stand 31

Hunter Industries is a global manufacturer of products for the irrigation commercial and golf markets, landscape lighting, and custom moulding sectors. Founded in 1981, the family-owned company offers over 1000 products including a complete spectrum of water-efficient solutions for golf and commercial irrigation systems.

Products range from rotors that throw between 3-48 meters, the water saving **MP Rotator**, a full line of AC-powered controllers with smart weather-sensing capabilities including the fully modular **I-Core** and highly

## 29TH AUSTRALIAN TURFGRASS CONFERENCE MAJOR SPONSOR

JOHN DEERE GOLF



### Stand 42

John Deere has been a manufacturer of machinery since 1837. It is seen as golf industry leaders in environmentally friendly technology such as hybrid mowers resulting in reduced noise levels and fuel consumption. Customers using John Deere machines around the world to maintain golf courses and sporting venues are supported by a factory-trained dealer network, second to none, who can provide service and parts solutions with minimal downtime should the need arise. Coupled with the flexibility of being able to offer finance options through their own finance division it's no wonder that John Deere is trusted on the world's top golf courses and sporting arenas.



popular **X-Core** controllers, valves built to withstand 15 bars or 1500kPa, the subsurface irrigating **Eco-Mat, Professional Landscape Dripline** with built-in check-valves and robust central control options.

Hunter's core mission always has and always will remain the same – to produce innovative products of the highest quality and back them with unwavering customer support.

## KUSTOM BIND



### Stand 46

Kustom Bind is a permeable, polymer-treated gravel layer used for the lining of bunkers, separating the bunker base from the bunker sand. The process involves binding specified aggregates together, which produces a superior drainage blanket for water to escape the bunker sand, enabling it to move laterally toward the drainage pipes.

Kustom Bind prevents sand slumping, erosion and contamination, drastically

reducing the costs associated with bunker maintenance, as well as being extremely durable, long-lasting and environmentally friendly. Kustom Bind is also resistant yet flexible and will not crack, break down or disintegrate. Kustom Bind's polymer formula will not be affected by weather-caused soil expansion or contraction – it moves with the soil, rather than resisting it.

Furthermore, Kustom Bind is the most effective Australian made bunker liner that seals off the bunker sub grade eliminating contamination of the sand and drainage systems. We know of no other system that protects the integrity of your drainage the way Kustom Bind does. Fully functional, fast drainage means the sand dries quicker and the course is back in play faster after heavy rains.

## NUTURF AUSTRALIA



### Stand 26

Nuturf, a division of Amgrow Pty Ltd, is a leading distributor of products and agronomic services specialising in the turf and amenity horticulture industry in Australia. Our national network of qualified sales specialists offers advice and solutions in plant nutrition, plant protection, seed, surfactants and colourants.

The core segments of the business which our sales specialists focus on are golf courses, sportsfields and amenity turf, spray contractors and facility management, racetracks, schools, turf farms, bowling greens, landscape, industrial vegetation management. In addition to servicing the Australian market, Nuturf also operates in New Zealand, Fiji, China and Singapore. Nuturf continues to look for new opportunities in overseas markets.

Nuturf's mission is to deliver to the Australian turf and amenity horticulture industry products, service and agronomic

## PLP GOLF AND TURF



### Stand 35

PLP Golf and Turf is a division of Roy Gripske and Sons. Golf and turf employees are committed to providing their customers with the best quality products and the services to match. Our aim is to supply the golf and turf related industries with all the aftermarket spare parts, power equipment and accessories they require to run their golf courses business efficiently and profitably.

We have a dedicated team of office and warehouse staff as well as state-based sales representatives. This allows us to efficiently service your requirements. Our warehouses are located in Brisbane (head office), Sydney, Melbourne and Perth.

solutions above and beyond the expectations of our valued clients. Our commitment is to our customers, our staff, the environment and the community in which we operate. The reputation and performance of our products and service is critical in achieving growth and business success, providing a great place to work and the delivery of our mission.

## RIVER SANDS



### Stand 16

If you want beautiful green grass that stays healthy for longer, then you have to contact us! The trick to growing healthy grass is to ensure that the roots are bedded in a medium that allows moisture and nutrients to constantly reach the roots, but not 'drown' them. River Sands' **Turf Sand** is ideal for this!

With a sand particle size evenly distributed from 0.1mm to 0.6mm, our turf sand allows water to penetrate and gradually seep down from the surface to the roots below, at a controlled rate. The water is

sprinkler (U.S. patent #1997901), which revolutionised the food production industry and ushered in a new era in irrigation worldwide. The original impact sprinkler was designated a historic landmark in 1990 by the American Society of Agricultural Engineers. Today, Rain Bird offers over 4000 irrigation products and services.

Rain Bird is committed to The Intelligent Use of Water™. It is our legacy to design and manufacture only those products of the highest value and quality. We work for long-term, responsible partnerships with our customers and our vendors. This is who we are, and this is how we wish to be perceived in the irrigation industry and our communities.

## PGG WRIGHTSON TURF



### Stand 5

PGG Wrightson Turf is part of PGG Wrightson Seeds Ltd, Australasia's largest proprietary seed business. PGG Wrightson Turf has been breeding turfgrass seed specifically for the Australasian environment for over 30 years and has established itself as an innovative market leader in turfgrass breeding, and turf research and evaluation.

Our aim is to supply Australasian turf managers with high performance turfgrass solutions for the unique challenges faced by the Australasian turf industry. PGG Wrightson Turf operates its own turfgrass breeding and product evaluation programme based from our research facility, Kimihia Research Centre on the outskirts of Christchurch, New Zealand which is supported by additional trial sites throughout Australasia.

Our philosophy is simple – we base the offering of turf products upon scientific principles derived from a number of local and overseas suppliers in order to utilise the leading technological advancements in turfgrass solutions. Products sold by PGG Wrightson Turf undergo a rigorous testing and screening process from our local and international research partners, including STRI UK, NTEP USA, ANTEP Australia, University of Sydney turfgrass programme and NZSTI New Zealand. This ultimately enables us to provide our customers with turf solutions that are tailored to meet their specific requirements.

## 29TH AUSTRALIAN TURFGRASS CONFERENCE MAJOR SPONSOR RAIN BIRD AUSTRALIA



### Stand 41

A privately held company founded in 1933, Rain Bird Corporation is the leading manufacturer and provider of irrigation products and services. Since its beginnings, Rain Bird has offered the industry's broadest range of irrigation products for farms, golf courses, sports arenas, commercial developments and homes in more than 130 countries around the world.

Rain Bird has been awarded more than 130 patents, including the first in 1935 for the original horizontal action impact drive



## SIMPLOT PARTNERS

### Stand 25 SIMPLOT PARTNERS<sup>®</sup>



Simplot Partners is among the largest suppliers of professional turf products in the world with facilities throughout the western USA, Asia and Australia. Simplot welcomes the opportunity to be involved in the 29th Australian Turfgrass Conference on the Sunshine Coast.

This year we will have special guests from the USA including **Tammy Harney** from **Profile** products to discuss the advantages of using Profile, as well as **John Maggiore** from Simplot USA discussing the **Simplot Specialty** product range. We will also have on our stand **Tony Braga** the chemist from AAC to discuss the Simplot liquids which are considered the most advanced liquid range on the market including **Liquimaxx Greenmaxx**, **Ferro-cious** and **Injectables** etc.

We will also be demonstrating our strong partnerships with turf industry leaders Syngenta and Bayer. We will also have **Scott McKay** to discuss our advanced **Simplot Analytical Services** and launch some new specialty products. As per normal we will be running out competition to win a trip to the GCSAA Golf Show, which will be held in Orlando, Florida in February 2014. Please talk to your Simplot sales representative to get more information on how to enter. See you on our stand.

therefore optimised at the root level ensuring it doesn't flow through too quickly without effect, or too 'slowly' to cause drowning of the roots (something that commonly occurs with so-called turf soils).

Importantly, River Sands turf sand meets the demanding USGA (United States Golf Association) grading standard for use on putting greens and you can be sure our sand is free of weeds and seeds so you don't have to worry about 'uninvited' guests. For greater growing performance it is wise to select from one of our organically enhanced turf sands blends or try our range of proven, specialist bunker sands!

## SCAPE SHAPES IRRIGATION SERVICES

### Stand 36



Scape Shapes is one of Queensland's most respected commercial landscape contractors, experienced in all aspects of commercial landscaping, irrigation and maintenance throughout Queensland and northern NSW.

Scape Shapes' Irrigation Services Division is at the forefront of creating robust irrigation

## 29TH AUSTRALIAN TURFGRASS CONFERENCE MAJOR SPONSOR SYNGENTA AUSTRALIA



### Stand 38



Syngenta has an ongoing commitment toward creating specialist turf management solutions and services for the golf industry, combining innovative, commercially viable and environmentally responsible ways for superintendents and course managers to achieve consistently high levels of turf quality.

As the game evolves to embrace new markets and adopts a more customer-centric approach, we are gaining even greater understanding of the challenges that

systems that are cost effective, water efficient and have a positive community impact. Scape Shapes provides design, supply and installation of irrigation systems, pump stations, water treatment and water storage for all commercial applications, specialising in sports turf. By thinking in millimeters, Scape Shapes will help you save megalitres.

Scape Shapes' Construction Division has completed some 3000 individual contracts, ranging from the very small to multi-million dollar projects, in virtually every type of construction workplace imaginable. We have skilled and experienced management personnel as well as effective management systems that enable us to consistently deliver our projects to meet the specified requirements, and always live up to the commitments made to our client.

Scape Shapes' Maintenance Division maintenance activities are performed as part of our landscape construction projects, stand-alone maintenance contracts and programmed maintenance contracts for larger areas with multiple sites. Our ability

superintendents face in terms of maintaining and developing the courses of tomorrow.

Our products and services have been developed through significant investment in research and development, harnessing the latest discoveries in science and technology to provide new ways to enhance courses worldwide. Alongside our product range, we share our insight and expertise through education, support and advice – helping our customers to get the most from their time and resources by promoting best practice usage. Syngenta is one of the world's leading companies, with over 27,000 employees in over 90 countries dedicated to bringing plant potential to life.

to plan and manage maintenance contracts benefits from our strong project background, ensuring superior outcomes for our clients.

## SST AUSTRALIA



### Stand 32

SST Australia is a significant manufacturer and supplier of soil moisture maintenance aids and spray additives for the turf industry in Australia and New Zealand. The principle products supplied by SST are:

- **Aquaforce** – premium highly penetrating soil wetting agent;
- **Broadwet** – irrigation applied soil wetting agent;
- **Restore** – economical general purpose soil wetting agent;
- **Breakthru Gold** – highly effective corrective wetting agent for severely water repellent areas;
- **Envirodye** – environmentally compatible marker dyes for turf sprays.

SST Australia has recently introduced to the market a new product known as **BI-AGRA**. BI-AGRA is a highly effective

## STRATHAYR

### Stand 22



StrathAyr is a turf producer, a developer of natural turf technology and a world-leader in sportsfield and racetrack construction techniques. StrathAyr has turf farms in Victoria and Tasmania and grows a full range of turf varieties for supply to major sport and racing facilities and the domestic market. Turf varieties include Legend<sup>®</sup> couchgrass, Village Green kikuyu, Sir Walter buffalo lawn turf, RTF<sup>™</sup> tall fescue, Santa Ana couch, Penn G2, A1, A4 bentgrass.

**StrathAyr Turf Systems** is based at our Victorian farm. We specialise in the **ReFlex** reinforced StrathAyr system for sportsfields and racetracks and also construct high

quality unreinforced sand profile sportsfields. We also produce **MegAyr Turf** – instant use, 50mm thick turf reinforced with ReFlex mesh elements. This product is ideal for use on both sportsfields and racetracks.

Other StrathAyr products include removable natural turf systems for stadia, tennis and racecourses, permanent natural turf systems for stadia and racecourses, 'drop-in portable cricket wickets and natural instant turf replacement products. We have recently completed the construction of a sand profile field for the Richmond Football Club at Punt Road, with other projects under construction including Moe, Kensington and Royal Randwick racecourses and the Adelaide Oval.



## 29TH AUSTRALIAN TURFGRASS CONFERENCE MAJOR SPONSOR TORO AUSTRALIA



### Stand 37

Toro Australia is a leading supplier of equipment to the golf, sportsfield, municipal, professional landscape contractor, residential, construction and hire and rental markets. Toro Australia is also a leading supplier of irrigation products to the landscape, agricultural, turf care and domestic garden markets.

Toro products are used at many

renowned sites and events around Australia and the world, including Adelaide Oval, Sydney Cricket Ground, Suncorp Stadium, Bradman Oval, Melbourne Cricket Ground, ANZ Stadium, Royal Melbourne and Barnbougle Dunes, Ascot and Royal Randwick racecourses, Crown Casino, St Andrews Links in Scotland (site of the 2010 Open Championship), Wimbledon and Walt Disney World Resort just to mention a few.

Toro Australia is part of an experienced worldwide network and is committed to providing consistent innovation and exceptional customer care.

moisture retention aid which is easily applied to turfgrass and sports areas that suffer from poor moisture retention and consequent poor turf health and vigour. Independent trials have shown that application of BI-AGRA can retain up to five times the normal amount of moisture held in the rootzone at field capacity. Improved appearance and vigour can be obtained with half the amount of applied water to the turf enabling reduced irrigation requirements. SST's products are exclusively available from Globe Australia and in New Zealand from PPG Wrightson Turf.

## TACIT

### Stand 51



Tacit is the national authority of golf course equipment and an internationally renowned golf course equipment manufacturer. Its main office is based in Rugby in Warwickshire, England in conjunction with its manufacturing premises. Tacit supply the majority of courses in the UK and Europe with course equipment including St. Andrews Links Trust, Celtic Manor, Turnberry, Royal St Georges etc... which bodes well for Tacit's recognition within the industry as the market leader.

On the championship front, Tacit have supplied the majority of the Open venues in the past and continue to supply all of the Open qualifier events and courses with assistance and equipment to run their prestigious event. Tacit continue to be retained by IMG to provide equipment for their televised events worldwide on the European Tour.

Come and see us on stand 51 and see the holecutter that is used for the Ryder Cup and The Open Championship at St Andrews' Old Course. Experience too the unique holecup ferrule system that is on 80 per cent of golf courses in the UK. Why? Because it outlasts any other holecup ferrule system on the market by at least 50 per cent.

## TRU-TURF

### Stand 20



Tru-Turf is the original turf rolling company that bought you such things as our patented tri-roller smoothing heads fitted with heavy duty smoothing rollers. Tru-Turf greens rollers are renowned for their ability to follow contoured greens with even ground pressure, utilising design not weight to produce a Tru-Turf surface.

Tru-Turf's gasoline golf green rollers have a power-train designed to handle the toughest operating conditions, utilising a Honda 6.5HP OHV engine with lighting coil, coupled to a heavy duty Eaton 11 hydro transmission, S/S oil reservoir and heavy duty, low oil pressure steel lines.

The stealthy **R52-ELT** electric golf greens mower utilises a powerful electric motor to silently roll up to 25 greens on a single charge, while effortlessly maintaining its rolling speed up or down hills. The unique and easily operated, built in trailer includes heavy duty axles and trailer arms. When combined with the rugged lightweight features of Tru-Turf greens rollers, they're ready to take on the world's most demanding golf courses. Tru-Turf rollers are used extensively on the PGA Tour, Champions Tour and Nationwide Tour.

## TURFCRAFT INTERNATIONAL



### Stand 7

There is nothing more important to us than being able to meet our readers and our advertisers face to face. TurfCraft International has been part of the turf industry for more than 25 years and **Ed Kryskow** and **Alastair Dowie** have been the team that has continued the magazine's close link with industry.

We invite all readers, past and present, advertisers and industry organisations to call in at our stand at the trade show to have a chat, discuss industry news and give us some feedback. We will have some back issues of the magazine if you are missing some. TurfCraft is a strong supporter of the turf industry and looks forward to a positive and educational conference and trade show.

**ALSO EXHIBITING:** **Graden (53), Q-Turf Machinery (12), Redexim Charterhouse (4), Sanoway (52), Tru-Match (47), V-Mach Australia (45).**

# PRINCIPAL SPONSORS



JOHN DEERE







**Westpac Stadium in Wellington, NZ hosted the first AFL game for premiership points played outside of Australia with the ANZAC Day clash between St Kilda and Sydney**

AGCSATech senior agronomist Andrew Peart looks at the challenges some of our AFL ground curators have had in transitioning from summer to winter codes and discusses practical completion issues which can arise during the construction of a new golf course.

# Transitioning test

**T**he 2013 AFL Premiership season has kicked off, as too has the other dominant code in Australia, rugby league (NRL). While NRL grounds are generally spared the transition issues of cricket, it is the ever-diminishing changeover period that is providing AFL ground curators and sporting body representatives increasing challenges.

This season saw the anomaly of having cricket's Sheffield Shield final being played during the opening weekend of the AFL. The AFL had factored this into their scheduling with only two games played over that first weekend at non-cricket venues AAMI Stadium (Adelaide) and Patersons Stadium (Perth).

Nevertheless the following week's scheduling could have provided far more grief with the MCG hosting its first AFL game only two days after the completion of the Shield final. It was with some good fortune (or poor cricket on Victoria's behalf) that this scenario did not eventuate, however, the AFL Players Association (AFLPA) had already raised concerns with the AFL about such a possibility.

Their greatest issue appeared to be the height of the grass on the outfield and the perceived possible increase in surface hardness. While there

would be little impact in the length of the grass on surface hardness (the MCG outfield is solely perennial ryegrass), the perception certainly would have been that the surface must be too hard. Unfortunately, many judgements by the media and other organisations are made on ill-informed facts that place curators under far more pressure than they already sustain.

With the Shield final being held at Blundstone Arena (Bellerive Oval) in Hobart, the MCG's length of grass was at normal AFL cutting heights for the opening fixture on 28 March, presenting the AFLPA with no issues. However, with Blundstone Arena hosting the Shield final, curator Marcus Pamplin had a much shorter turnaround time to prepare the wicket table and outfield for AFL with North Melbourne playing its first game (against Sydney) in round three (Saturday 13 April). While it was not two days afterwards, as it would have been for the MCG, it was still a very short timeframe to transform a cricket wicket into a suitable surface for AFL.

It was not only Blundstone Arena that had to deal with such a scenario but also The 'Gabbra (Brisbane), Manuka Oval (Canberra) and the SCG. The SCG and Blundstone Arena both oversaw their



tables to provide a predominantly perennial ryegrass playing surface through the winter, while Manuka Oval and The 'Gabba maintain straight couchgrass tables. The ryegrass on the tables at Blundstone Arena and the SCG were still quite immature for their opening matches and if wet weather prevails, as it did for the SCG match between Sydney and Gold Coast (8 April), grass cover is adversely affected.

The ground curators, however, must be commended on their ability to produce suitable playing surfaces in less than ideal turnaround times to satisfy the current demands of all user groups. Unfortunately it is unlikely that the scenario will change and could be a growing issue in years to come especially with Adelaide Oval set to become the principal AFL venue in Adelaide venue following the current redevelopment.

## ST KILDA V SYDNEY

And while we are on the subject of AFL, ANZAC Day saw the first AFL premiership match contested offshore when Sydney and St Kilda ventured to Westpac Stadium in Wellington, New Zealand (main photo opposite page). While exhibition matches have been played overseas in the past (including New Zealand and the UK), this is the first time that premiership points have been up for grabs outside of Australia.

As part of AGCSATech's contract to undertake ground inspections of all AFL venues, I had the opportunity to inspect the Westpac Stadium surface and catch up with ex-pat Australian curator Brett Siphthorpe prior to the game.

The multipurpose stadium is home to a number of different sports with notable tenants being the Super 15 Hurricanes (rugby) and Wellington Phoenix (A-League). The stadium also holds one-day and twenty20 international and domestic cricket, All Black test matches and the ITM Cup (New Zealand's provincial rugby championship), Warriors NRL matches, the New Zealand leg of the HSBC Sevens World Series (rugby union) as well as concerts and other one-off events such as Nitro Circus.

It is not the first time that AFL has been played at the venue, with an Ansett Cup clash between Hawthorn and the Western Bulldogs played in January 2000 and again in 2001 when Brisbane played Adelaide. Earlier this year it also hosted a match between the New Zealand Hawks (New Zealand's senior AFL representative team) in a match against the Australian Institute of Sport's AFL team.

The playing surface at Wellington is primarily perennial ryegrass with a very small percentage of *Poa annua*. While the stadium was originally constructed with a wicket table, it has since been removed and cricket is now facilitated with the use of one drop-in wicket that is off-set marginally to the eastern side of the ground. The stadium has two drop-in wickets which are rotated and they are both housed on the eastern boundary line when not in



use. This location does not impact rugby or soccer, however, one of the wickets formed part of the playing surface for the Sydney v St Kilda AFL game.

One of the interesting aspects of Westpac Stadium is that the sand profile doesn't contain a turf reinforcement product, with the exception of a small section of Motz® turf where the drop-in wicket is installed.

During the inspection (about 10 days prior to the ANZAC Day clash), surface traction was tested using the studded boot device and the traction readings recorded were as high as any ground within Australia that has a couchgrass base, with or without reinforcing. This may be attributed to the sand being a little more angular in particle shape but more importantly the overall maturity of the ryegrass and a root system that probably survives all year round.

**The SCG (top) and Blundstone Arena (above) wicket tables prior to both grounds hosting their first AFL matches for 2013. Both venues had very short timeframes to transform their wicket tables into a suitable surface for AFL**

## PRACTICAL COMPLETION ISSUES

In April I was able to inspect a golf course that has been under construction for the past year. During the inspection there were a couple of interesting observations.

First and foremost was the excellent condition of the newly constructed greens, particularly the quality of the new bentgrass cultivar T1 that was





When spot spraying is carried out there is generally some impact on the desired grasses which is best rectified with placing turf sods back into these areas either as turf doctor plugs or larger rolls

being grown. Of slight concern, though, was the amount of organic matter that had developed within six months of it being sown.

While a high level of thatch accumulation is common early on in the establishment of a putting surface, it is also the ideal time to be able to manage or dilute its accumulation. Generally, pressures are placed on superintendents not to renovate due to the disruption it causes to the surface and adverse effect it has on the golfing calendar. However, during the grow-in period there is no such pressure which provides the ideal time to apply sand topdressings and dusting to dilute the accumulating thatch.

Thatch accumulation is at its most aggressive during the grow-in phase. The growing medium has been consolidated during the construction but has not been overly compacted, meaning there is adequate aeration within the rootzone, the medium is receiving abundant irrigation as well as frequent fertilisation to encourage quick coverage.

It is during this time, and even arguably before the initial mow takes place, that a light dusting should first be applied to the surface. Once mowing has begun and the surface begins to stabilise and handle heavier equipment, it should receive its first topdressing to not only alleviate those minor discrepancies within the surface but, again, continue to dilute the thatch.

If these continual sanding operations are performed during the grow-in period, the greens may well be able to avoid being cored or scarified. However, if greens quickly develop a layer of undiluted thatch, then coring or scarifying is necessary to prevent those greens having a spongy surface even before they get handed over.

Coring and scarifying activities disturb the surface of the green and can initiate the germination of *Poa annua*. However, if the growing medium is an imported sand, the *Poa annua* seedbank should be insignificant. The absence of golfers also eliminates *Poa annua* seed being walked onto the greens by golfers.

During the three-year (2010-2012) AGCSA bentgrass cultivar trial, the amount of *Poa annua* infestation into our three trials sites was minimal, particularly at Cromer (Sydney) and Royal Adelaide golf clubs. While the sites may have received some *Poa annua* control herbicides, the lack of golfers on those surfaces, I believe, certainly limited the *Poa* infestation.

In early establishment of greens, particularly with more and more emphasis being placed on firm golfing surfaces, the ability to undertake early and regular sand dustings must be a key maintenance requirement. It is as important as mowing and fertilising, particularly when there is no pressure to deliver a pristine golfing surface day in, day out.

The second observation was that of the difficulty in obtaining weed-free golfing surfaces on newly established areas that have not been solid turfed and where the ground has been disturbed. Golf course construction invariably involves disturbing ground and having to often utilise in-situ soils that have been supporting all manner of vegetation, generally pasture, for decades.

While it is relatively easy to obtain a weed-free surface at the time of planting or seeding through cultivation and herbicide applications, often the issues arrive with ongoing weed suppression. While there are some excellent turf registered pre-emergent herbicides, they can have some limitations and are not always utilised.

Generally, broadleaf weed control is relatively straightforward with turf registered post-emergent herbicides, however, it is the control of perennial grasses such as kikuyu and paspalum that can pose the most problem. As mentioned earlier, if solid turf is being used, the weed burden is often far less due to the instant shading and lack of light that the solid turf creates, something that seeding, line planting or broadcasting sprigs onto the surface does not.

The alternatives then become hand weeding, spot spraying with a non-selective herbicide or using a turf registered selective herbicide. Each technique has its own positives and negatives, although the earlier the weed control can be undertaken the better in providing a uniform coverage of the desired species.

If spot spraying is undertaken there is generally some impact on the desired grasses and this is best rectified with placing turf sods back into these areas either as turf doctor plugs or larger rolls of turf. There is no doubt that in a couchgrass sward that the stolons of the couch may well cover over these patches, but obtaining a full coverage as soon as possible is far more desirable.

The use of turf registered selective herbicides will generally not lead to the death of the desired grass species but may be less successful at obtaining a complete kill of those weed species. Again, during a grow-in period, a more aggressive option can be undertaken in order to provide a successful outcome. 🌱



Thatch accumulation is at its most aggressive during the grow-in phase of a newly constructed putting green





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# Weathering the storm

Superintendents across the country have had to endure some pretty extraordinary weather events in recent years, from intensely hot or wet/dry summers to cooler drier winters and the longer transitional periods between seasons. The Pulse asked superintendents how these fluctuating conditions have impacted their turf management practices.

“Ipswich Golf Club has been hit hard twice in recent years, first by the Brisbane floods of 2011 and then again this past Australia Day. Since the most recent inundation, my practices have changed dramatically. We had no irrigation until the middle of March which meant running hoses from dam to dam with a fire pump and watering everything by hand. That also meant no fertilising, so recovery on greens was slow. Combined with the type of grass (seashore paspalum) which was planted by developers and the past board, dollar spot is now rife.

The 2011 floods are still very much being felt financially and I’m unable to put out fertiliser or fungicide. As a result the course is struggling and the numbers coming through the gate has declined. So clubs that think they are hard done by missing a Saturday or two due to wet weather or their greens are a bit slow or bouncy from pitch marks, come to Ipswich and see what staff and golfers have to put up with day, in day out.

To top off a bad year, on Friday 19 April 2013 the club went into voluntary administration. The club has been given five weeks to turn things around or after 115 years or so of golf being played at the course the doors could be closed.” **Chris Fletcher, Ipswich Golf Club, QLD**

“The weather in Perth has been strange to say the least over the last three years especially. Perth has seen hotter and drier summers as well as drier winters, but wetter autumns and springs. We have just been through what the media has called, over the last two months, our Indian summer, which is supposed to be autumn! Every summer now we seem to be breaking records – last summer it was the most consecutive days over 35 degrees and this year the driest and hottest on record.

At Wembley Golf Complex we are using more fungicides than ever before with disease definitely more prevalent over the summer months which was not an issue 3-4 years ago. Nematodes are now a pest that were not an issue before and summer irrigation rates are at their highest ever. As a result of the increased need to irrigate, our electricity consumption has risen and therefore added to our power bills dramatically.

We have found that the growing season is longer right up to late April where the growth of warm-season grasses is out of control which is adding to fuel and labour costs. The longer summers are also making us wait longer to overseed ryegrass on tee tops, as well as treatments of Drive and Tupersan to control kikuyu and couch in bent. Overall it means we have to wait for the weather to change instead of timing our chemical applications based on the calendar otherwise they become ineffective. The other problem is because of the changes in the weather and the unpredictability of it, preventative applications need to be more reactive.” **Darren Wilson, Wembley Golf Complex, WA**

“Over the last few years here at Whittlesea, the hot dry summers have started taking a toll on all aspects of the course. In particular, the watering of the course became a major issue. Our irrigation system was falling apart and being a manual system was very time-consuming and frustrating to say the least.

After many years of huge fuel bills and repair costs, it came time to put in a new system. The installation took part during last winter and over this summer we saved around 20 per cent of our water. Having to rely on dam water only, this is a significant saving for us. Our irrigation practices have completely changed with the course being the best it has been during summer ever. Wetting agents are applied more efficiently and there has been less need to hand water, which frees up my staff for other tasks. Although the system was a big expense for the club, it has made a huge difference.

The last few winters have been quite wet and with the ongoing application of gypsum to the fairways and surrounds we haven’t had a problem



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with wet areas. With the inclusion of drainage in low lying areas and regular slicing, these areas are now not a problem. With a limited budget we are always trying new ways to improve the playing surface without breaking the budget.

With the irrigation system being more efficient, we have reduced the amount of man hours watering which has decreased overtime costs and also the amount of disease that we were spraying for.

With the hotter summers I guess the biggest change we made to the course was to replace the tees from rye/fescue to Santa Ana couch. This proved to be quite hard to convince the committee at the time, but it is now showing the benefits with a much better playing surface with much less upkeep.

Although last winter saw a lot of fusarium in our greens, the cost of the chemicals was offset by the huge savings in overtime and fuel costs." **Brad Tucker, Whittlesea Golf Club, VIC**

"The main effect of the recent wet weather in Queensland has been the impact that it has had on club revenues. We had a period in February/March where it rained for 26 consecutive days which has hurt clubs which were already struggling for revenue. Speaking to other superintendents we are really having to re-evaluate things for the rest of the year to help our businesses survive including reducing staff and expenditure across the board. It will be interesting to see how golf clubs cope in the next six months with some already on the brink." **Robin Doodson, Sanctuary Cove Golf & Country Club, QLD**

"Our weather hasn't been all that radical, but this past summer was particularly dry. It rained about 10 days prior to our Pro-Am on 13 December which was very timely and had the fairways in a reasonable shape, but then we literally had nothing. The rain gauge at the local airport no more than 3km away recorded a few millimetres of rain but on the golf course we didn't get a drop from 4 December until early March.

This really pushed our water supply (bore) to the limit. I have had set times that the tees and

fairways have been watered for quite a few years and these had to be reduced in certain places. It actually became a real exercise in seeing just where I could save literally a minute or two here and there without losing quality. While a couple of spots on the fairways may have dried out a little, not too many golfers actually noticed. As part of this I have recorded where I saved water for years to come.

After the drought broke in March the fairways really jumped out of the ground and I think they are probably better now than ever. I am not sure that it qualifies as extreme weather when you read what other supers have had to deal with around the country, so I actually think we just had a pretty good year!" **Anthony Toogood, Commercial Club, Albury, NSW**

"I have been at Woodburn Evans Head Golf Club in northern NSW for the last two-and-a-half years and the main weather problem in that time has been the above average rainfall. The last few months have been especially wet with 435mm recorded for February. To put that in contrast, for the previous 10 years the average for February has been just 150mm.

We have a very flat surrounding area and course (it was an old horse race track way back) with only subsurface drainage on the 328 push-up greens. The mainly sandy loam soil reaches saturation point quickly and surface water drains very slowly. The water sitting on low fairway spots for extended periods has killed off the turf many areas. It is easy now to identify the low areas which we have started to raise. We cut the fairways with rotary mowers when areas finally dry, before the cylinder mower gets back on.

In regards to spraying, we try to limit application of any products which requires watering in, which has been a challenge recently with ERI. We have had to increase

the frequency of fungicide applications in the last few months to fortnightly despite a monthly preventative programme and the usual cultural controls. There has been a general increase in product usage and costs due to the high leaching.

We were also hit by a two-hour storm in late November 2012 last year. Some 100mm of rain, hail and 100kph winds lashed the course with over 200 large trees brought down. We had three direct hits on greens (see photo below), however we are seeing the positive effect on all those greens now that they have less competition for nutrients, moisture, sunlight etc." **Scott Macgregor, Woodburn Evans Head Golf Club, NSW**



# superintendents and golf clubs course maintenance standards





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"At Horton Park we received 1404mm from 25 January-15 April 2013, with rain recorded on 52 days of that 80 day period, not to mention the endless cloud cover. Not only was it a challenge trying to keep greens alive and growing, it was also difficult dealing with the frustration of members due to cancelled competitions, the rescheduling of special events and banning carts from the course.

We have scheduled into our fixture book two days for greens renovations with another two days as back up if the first two get rained out. This year they both got rained out which meant doing a minor renovation and being careful not to do too much damage due to the conditions we were experiencing. It is easy to say we will do it later, but when you look at the golfing calendar that isn't possible, especially given the amount of money the club has already lost during this spell.

As far as keeping greens going, we foliar fertilise a lot to keep some nutrients up to the plant and keep some colour in them. Products to help move water through the surface are applied, mowing heights are adjusted and, of course, fungicides are applied when the weather breaks. We are fairly lucky because our greens do drain reasonably well but the constant wet surface is a problem.

At present the weather has been beautiful and now we are adjusting our maintenance programmes to get the best we can out of our greens leading up to winter when growth basically stops." **Pat Pauli, Horton Park Golf Club, QLD**

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"This past summer was particularly hot. Normally with these hot summer conditions we get a break in the weather thanks to the odd summer storm that drops some decent rain. These summer storms and rain didn't happen this year. The problem I've faced this summer is that I have had to over-compensate for that missing rain with extra watering. Watering isn't a problem as we have plenty of Class A recycled effluent water available, but with its increased usage comes the issue of salts.

I have certainly noticed a build-up of salt and salt damage in certain greens where they would dry out (mounds etc...) and therefore have been hand-watered with effluent over the warmer months.

During the back end of summer through to autumn we were still hand-watering to keep greens turf alive and having *Poa annua* greens this requires a fair bit of watering.

In past summers we have had to do the same watering practices but have been fortunate enough to have the odd storm or rainfall to flush the profiles. This has not occurred this summer. So all in all, the lack of good clean rain has presented me with more headaches than just keeping turf alive and healthy."

**David Johnson, Patterson River Golf Club, VIC**

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"The extraordinary weather at Waterford Valley has certainly varied in the last 10 years. The intense hot and dry summers from 2006-2009 were a good thing to help the course through its grow-in and establishment phase, but this past summer has definitely been one of the most challenging to date.

We have a good storage system with a series of five dams linking into our main irrigation dam, but this past summer we used about 85 per cent of our capacity and it was a constant process of shifting water. Due to the dry summer we had a lot of casuarina tree roots blocking our outlets and we lost about 4ML from an irrigation mainline break. Minimal irrigation was applied to fairways and while the greens were irrigated throughout we had to handwater most days.

Root depth has significantly improved this summer and more liquid calcium applications were made to keep up with the stress levels, along with more wetting agents, especially on high ridges. Rhizoctonia was a problem this summer due to the weather conditions which meant more fungicide applications.

As for the long wet winters over the last three years, I have been minimising my autumn irrigation practices to help reduce the heavy clay profile from getting wet early. A drainage audit has also been carried out and drainage is to be installed in the appropriate wet areas. My aeration practices have increased to help eliminate these areas from getting wet and to help with worm castings. Gypsum applications have also become a yearly practice to our fairways at a rate of 1t/ha. Here's hoping for a mild winter this year!" **Thomas Smith, Waterford Valley Golf Course, VIC**



**Tornadoes are a pretty rare event in Australia but the course maintenance crews at Cobram Barooga and Corowa golf clubs on the Murray River they were smashed hard after a series of tornadoes hit the region causing widespread damage in the lead-up to Easter. Cobram Barooga (pictured above) lost 250 mature trees in the 200kph winds**

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The Best Brands in the Market





The past summer has again tested the nerve of many Australian course superintendents, especially those with creeping bentgrass putting greens. In his latest column John Neylan looks at bentgrass heat tolerance and the ramifications of summer renovations and also reports on his recent visit to Thailand where he attended the burgeoning Asian Turfgrass Seminar.

Australia has just experienced a most interesting summer with the southern half of the country back into drought and the northern half suffering from high rainfall events and severe storms. It has again raised the question of how do we manage our turfgrasses under these stressful conditions, particularly when we are managing creeping bentgrass golf greens.

A complicating factor that adds another layer of stress is the move by many golf clubs to undertake a major renovation around Christmas time so as to minimise inconvenience to the golfers.

While the debate may still go on as to the need to renovate, I believe that there is a general acceptance that greens must be renovated to control organic matter accumulation and to maintain healthy turf. The problem seems to be that golfers want high quality surfaces every time they play and are less accepting of the inconvenience of renovations. Hence, there has been a move to renovating when the golf course is in recess.

Research carried out into creeping bentgrass cultivars under heat stress indicates that the newer cultivars (e.g.: Penn A and G series, L-93, Crenshaw, SR 1020) consistently rank among the top group for quality (Toubakaris and McCarty, 2000). Interestingly, the same research demonstrated that when the bentgrass is damaged by heat stress, the older cultivars such as Penncross are quicker to recover.

The ramifications are that when a new bent variety suffers heat damage or is renovated during hot weather it is going to be slower to recover. These differences are probably due to the older cultivars

tending to be more stoloniferous, resulting in faster recovery, whereas the new cultivars exhibit slow lateral growth.

This past summer has highlighted the fine line between injury avoidance and injury tolerance. Injury avoidance is where the bent experiences stress but no injury and injury tolerance is where the bent experiences stress and suffers injury but is likely to recover. In the hot Australian summer, increased temperatures, along with the everyday stresses such as traffic and surface preparation, result in shorter roots, increased disease susceptibility (summer bentgrass decline), wilting or dry spots and slower recovery from play, all of which results in a decrease in turf quality.

When greens are cored and sanded during hot weather this further compounds the stress on the bentgrass and is likely to result in injury and slow recovery. There is the physical injury of the coring process and the removal of the cores, as well as the abrasive effect of the sand.

Although several newer varieties have improved high-temperature tolerance, creeping bentgrass grows best at air temperatures from 14-24°C (Schlossberg et al., 2001). The growth of shoots (leaves, tillers and stems) and roots of this cool-season turfgrass slows as air temperatures rise above this optimum range.

The optimum temperature for successful turf growth is not necessarily the best temperature for achieving the best possible turf quality and generally the maximum temperature for growth is greater than the maximum temperature for peak turf



quality. A factor compounding the effects of high temperatures is increasing relative humidity which will often result in greater turfgrass injury.

Table 1 provides a summary of the average maximum temperatures experienced in the southern capitals this past summer. The temperatures were generally higher than the maximum for bentgrass, particularly during February (except for Sydney) and were in the extreme for most of the summer in Perth.

Root health is a very important factor in maintaining the overall vigour and resilience of creeping bentgrass. Since the optimum soil temperature range (e.g.: 10-18°C) for root growth of creeping bentgrass is lower than that for shoots, the leaves and stems of plants suffering high-temperature stress may continue growing while roots do not (Beard, 1973).

Table 2 provides a summary of the maximum soil temperatures at 5cm and 10cm depths for the southern capital cities over the same period. The soil temperatures are particularly interesting in that they are well above the maximum temperature for root growth.

The high temperatures cause the roots of cool-season grasses to decline and the growth of new roots is inhibited. Published data indicates that bentgrass roots do not grow when the soil

temperature is above 25°C (Lucas, 1996). The declining roots are more susceptible to root rotting fungi and other stresses and new roots do not grow in hot weather to replace the old roots.

Data from the Bureau of Meteorology ([www.bom.gov.au](http://www.bom.gov.au)) for December through to March reveals

**TABLE 1: AVERAGE MONTHLY MAXIMUM TEMPERATURE**

|        | Melbourne | Sydney | Adelaide | Perth |
|--------|-----------|--------|----------|-------|
| Dec-12 | 25.7      | 26.0   | 27.0     | 31.4  |
| Jan-13 | 27.3      | 27.6   | 28.5     | 32.3  |
| Feb-13 | 29.2      | 26.2   | 28.7     | 34.6  |
| Mar-13 | 27.6      | 26.4   | 27.3     | 28.4  |

Source: Bureau of Meteorology. Note: Optimum air temperature range for creeping bentgrass 14-24°C

**TABLE 2: AVERAGE MONTHLY MAXIMUM SOIL TEMPERATURE**

|        | Melbourne |      | Adelaide |      | Perth |      | Sydney |      |
|--------|-----------|------|----------|------|-------|------|--------|------|
|        | 5cm       | 10cm | 5cm      | 10cm | 5cm   | 10cm | 5cm    | 10cm |
| Dec-12 | -         | 27   | 38       | 32   | 36    | 32   | 26     | 24   |
| Jan-13 | -         | 30   | 40       | 33   | 42    | 35   | 28     | 27   |
| Feb-13 | -         | 30   | 39       | 33   | 42    | 35   | 26     | 25   |
| Mar-13 | -         | 26   | 36       | 31   | 33    | 29   | 26     | 25   |

Source: Bureau of Meteorology. Note: Optimum soil temperature range for creeping bentgrass roots 10-18°C

CONTINUED ON PAGE 69

## ASIAN TURFGRASS SEMINAR HOLES OUT

The AGCSA has had a long relationship with the Thai Golf Course Superintendents Association (TGCSA) and I was fortunate to attend their recent turf seminar. The TGCSA has been operating for about seven years or so and it is great to see how it has grown and is now the preeminent superintendent association in Southeast Asia.

The Asian Turfgrass Seminar (ATS) has grown from its first tentative event in 2006 to an event that this year attracted 242 attendees from 20 countries including Thailand, the Philippines, Japan, India, Malaysia and Indonesia.

The seminar covered a range of important topics including maintenance equipment, management of tropical grasses, fertiliser choice and back to basics turfgrass nutrition, irrigation management, selling your management programme and recovery from flooding. The seminar also included a field day at the Siam Country Club's Plantation Course followed by the Asian Golf Industry Federation Turfgrass Management Exposition.

The field day was a day of talks and hands-on demonstrations including bunker maintenance, demonstration of The R&A's new 'Holing Out' Test device and course set up for tournaments.

The 'Holing Out' Test was most interesting in that it is used to determine the 'reliability' or consistency of the putting surface. It can identify issues related to foot printing on overly soft surfaces, disease scarring, grass seed head production, seasonal variation in growth and general wear and tear (visit <http://golfcoursemanagement.randa.org/> for more information on this device).

The device can also be used to measure the degree and longevity of disruption to the reliability of putting surfaces from intensive maintenance procedures (e.g.: hollow coring). It can also be used to determine the most effective maintenance practices in the preparation for important tournaments.

Dr. Micah Woods conducted the demonstration and highlighted the effects that relatively subtle changes in the surface can make to ball roll. A section of the green was rolled and it confirmed its influence on a surface that was relatively soft and affected by foot traffic (i.e.: the surface improved considerably).

The session on setting a golf course up for a tournament was led by Dominic Wall who is The R&A's Asia-Pacific director. This was an excellent practical seminar about course preparation for a championship. Whether for an international event or a club championship, there was some excellent information to be gleaned from the discussion. Virada Nirapathpongorn, a former NCAA champion, US Women's Amateur champion and LPGA professional, assisted Dominic in the discussion and provided a valuable insight into course maintenance from a player perspective.

The field day also included a guided tour of the new Waterside Course now under construction at Siam Country Club which is located in Pattaya. The course walk was very instructive as they had prepared greens, tees and bunkers in various stages of construction so that delegates could better appreciate factors such as subgrade construction, drainage layout, gravel drainage blankets and sand rootzone.

- John Neylan



**Dr Micah Woods demonstrates The R&A's new Holing Out Test device at the recent Asian Turfgrass Seminar**

**Opposite page: Data from BoM for December 2012-March 2013 reveals that the monthly average maximum temperatures for Melbourne, Adelaide, Sydney and Perth were all above the optimum maximum temperature for creeping bentgrass**





**Despite the devastating floods in late 2011, many golf courses in Thailand have recovered remarkably well**

## THE LONG ROAD TO RECOVERY



**Disease on a flood-affected couchgrass green**

**Above far right and below: Impaired infiltration rates on sand profiles continue to be an ongoing problem. The photo below shows poor root growth on a TifEagle green, while the photo far right shows water sitting on the green surface due to the thin layer of silt which is impeding infiltration**



In the March-April 2012 edition of *Australian Turfgrass Management* (Volume 14.2), I wrote about the devastating floods which impacted Thailand in late 2011. In what was the worst flooding the country has experienced in half a century, 80 per cent of the nation's provinces were declared flood disaster areas, with numerous golf courses severely affected.

With the assistance of friend and guide Matee Suntisawasdi, during my recent attendance at the Asian Turfgrass Seminar I was able to return to several of the golf courses I had visited in the months following the floods, to see how they had recovered. Considering the level of turfgrass death and general devastation witnessed on my initial visit there, it is remarkable how well these golf courses had bounced back.

Most golf courses in Thailand are privately owned and the owners were very keen to get their courses back in play as quickly as possible in order to recoup the costs of course restoration. Consequently, most courses reopened too soon and it has been difficult for the golf course superintendents to catch up with some of the necessary physical treatments (e.g.:



hollow coring) required to make sure that the turf areas are able to function as designed. The main issues have been impaired infiltration rates, weed control and disease.

Impaired infiltration rates on sand profiles continue to be an ongoing problem, whether on greens, tees or fairways (many golf courses in Thailand have sand capped fairways). One particular example is where a green that was not flooded maintains an infiltration rate of 100mm/hr, whereas on a flooded green the infiltration rate is almost non-existent (see photo above). Despite rapid silt removal and renovation, the flood-affected greens still have a thin layer of silt that impedes infiltration. The silt layer and impediment to water infiltration also appears to be contributing to a greater incidence of disease. On-going renovations and sand topdressings will be required to remove this offending layer.

Nutsedge (*Cyperus* sp.) was the most rampant weed that benefited from the floods and it has taken considerable effort to control its presence. The loss of grass on many greens and the extensive overplanting that has taken place has highlighted the issues with contamination and the prominence of off-types that survived the flooding, compared to the hybrid bermudagrass, which have then had the opportunity to spread and become more prominent.

As noted previously, the survival of bermudagrass on flooded golf courses continues to impact on the turf composition of those courses that were originally planted with seashore paspalum and zoysia. While many golf courses were overplanted following the floods, the bermudagrass continues to make up a considerable component of the playing surface, particularly on fairways and in roughs.

**- John Neylan**



that the monthly average maximum temperatures for Melbourne, Adelaide, Sydney and Perth were all above the optimum maximum temperature for bentgrass. Perth was the most extreme with three months at 30°C and above. While bentgrass has well-demonstrated abilities to tolerate these conditions, it is still under stress and any additional stresses such as renovations, low cutting heights and traffic can result in turfgrass damage.

Root and stolon rot diseases have been identified as major factors in the summer decline of bentgrass and this is often referred to as summer bentgrass decline syndrome (Carrow, 1996). Summer bentgrass decline is characterised by a thinning turf canopy, leaf senescence and root dieback. Root dieback inhibits the production of cytokinins, a class of plant hormones that are primarily produced in roots, which, in turn, affect shoot growth and senescence.

Cultivation is a common practice on golf courses for soil compaction relief, aeration, thatch, improving water infiltration and stimulating growth and vigour. A study by Bunnell et. al. (2001) evaluated summer cultivation techniques on golf greens. The purpose of the study was to determine if cultivation could improve the tolerance to bentgrass decline.

Several cultivation techniques were examined including hollow and solid tines, water injection,



star tines and needle tines. While the hollow tine, needle tine and star tine treatments conferred some improvements in soil conditions, there was a decrease in turf quality ratings by 1.5 to 2.5 rating points with hollow and solid tines. Needle tines, star tines and water injection did not reduce turf quality. This research would support the premise and what we know from anecdotal evidence that hollow coring and solid tining present an increased risk of turf damage when used during hot conditions.

**When greens are cored and sanded during hot weather, this further compounds the stress on the bentgrass and is likely to result in injury and slow recovery**



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On summer renovated greens, water must not be a limiting factor. Hand watering and regular light syringing will help to offset the effects of heat stress and to encourage good recovery from renovation



## MANAGEMENT STRATEGIES

With the limitations of bentgrass during very hot weather and the ramifications of renovating greens when hot weather is likely, there are a number of maintenance practices that may assist in reducing the opportunity for turfgrass damage to occur.

Management strategies that can be employed are as follows;

- Lift the cutting height to 4mm 2-3 weeks prior to renovation and then maintain this height until the greens have recovered;
- To limit injury to heat-stressed plants, topdress in the early morning or in the evening when it is cooler and light is less intense (Turf Notes, 2010). If it is necessary to dust, do it late in the day and irrigate to incorporate sand into the foliage and thatch rather than matting it in;
- Manage traffic to reduce soil compaction and wear injury;
- 'Spoon feeding' with low amounts of nitrogen to assist in recovery and to assist with general heat tolerance. High rates of nitrogen to aid recovery are more likely to have a damaging effect on the root system. Where renovations are undertaken in the hot periods of the year the turf should be growing strongly beforehand;
- On renovated greens, water must not be a limiting factor. Hand watering and regular light syringing will help to offset the effects of heat stress and to encourage good recovery from renovation;
- As has been noted during the cooler months, alternating mowing and lightweight rolling will reduce turfgrass stress. The use of grooved rollers should be avoided when mowing creeping bentgrass greens suffering from high-temperature stress;
- Instead of large hollow tines, utilise routine hydraulic aeration or spiking (e.g.: with 6mm diameter hollow tines or solid quadratines) to

vent greens to improve the balance of air and moisture in the rootzone (Vavrek, 1999);

- Use preventative fungicides to minimise the opportunity for the diseases associated with summer bentgrass decline to occur;
- Huang and Xu (2010) also demonstrated that seaweed-based biostimulants significantly improved visual quality of creeping bentgrass in summer by promoting both shoot and root growth. Following from this research, bent under summer stress or summer renovated greens could benefit from the application of selected biostimulants.

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“When greens are cored and sanded during hot weather this further compounds the stress on the bentgrass and is likely to result in injury and slow recovery. There is the physical injury of the coring process and the removal of the cores, as well as the abrasive effect of the sand.”

John Neylan



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Got your attention? Steve Wait, safety director at e-par, takes a somewhat unconventional tack to highlight workplace health and safety issues and asks whether you're ready for a worst case scenario at your turf management facility.

When zombies start shuffling around your golf course or turf facility in the form of health and safety issues, ask yourself whether you are fully prepared to meet them head on...

I have written a number of articles on workplace health and safety (WHS) over the years for Australian Turfgrass Management Journal and for the most part they have always concentrated on the circumstances of the time, in particular the myriad changes to legislation.

In putting these past articles together, I have often discussed with the AGCSA a desire to also write a safety article that was a little more practical, easy to digest and informative. A key proviso for such an article should be based on keeping it practical and simple. So what could be simpler than 'If you are ready for a zombie attack, then you're ready for anything on your golf course'!

The inspiration for this 'When zombies attack!' take on golf course safety management is actually based on a real public safety campaign that was conducted in the Canadian province of British Columbia in May 2012. The campaign used the fascination that people, in particular those between the ages of 18-30, have with the popular horror genre to highlight awareness of being prepared for an emergency.

In this particular case the campaign focused on natural disasters that could impact the province such as floods, fires, earthquakes and tsunamis etc. The idea was that with the threat of a zombie attack people needed to be ready quickly and effectively by taking immediate steps to protect personal safety and survive, just as they would if a natural disaster was imminent.

With the threat of a zombie attack comes a very simple message – be prepared! It's the same for

golf course safety. Floods, bushfires, severe storms, hazardous material spills and course intruders are some of the dangers that could actually and have threatened lives and caused extensive harm in recent years here in Australia.

As stated in the British Columbia campaign "while the chance of zombies knocking on your door is pretty slim, we do believe that if you're ready for zombies, you're ready for any disaster". So what follows is a knowledge-based arsenal so that when zombies start shuffling around your golf course or turf facility in the form of health and safety issues, you are prepared to meet them head on.

With this article we have gathered together the best practical advice from our experience and from skilled course superintendents and site managers about tips to safety survival. It also includes some ideas on how to start the WHS process at your facility and some of the critical dos and don'ts when managing WHS.

As you continue to read, keep in mind the sobering fact that that turf management sits squarely within the agriculture sector which with 45 worker deaths recorded in 2012 was second only to transport and warehousing (66 deaths) and above construction (21 deaths) according to Safe Work Australia (total worker deaths were 192).

## KNOWLEDGE IS POWER

The rules to survive a zombie attack are strangely similar to general workplace safety in general. They are – practicality, common sense, take shelter, knowledge is power and protection in numbers.



Of those rules, it's the fourth one – 'knowledge is power' – that is perhaps the most relevant.

In a golf course or turf management facility scenario, knowing the risk within your area is critical. Other than a zombie attack, your course may be susceptible to particular natural disasters such as flooding, while on a day-to-day, job-to-job basis there may be a particular machine, chemical or person on your crew that might carry more risk and be more susceptible to something going awry. The secret is finding out what they are and being prepared.

When zombies attack, or an accident, emergency or a major spill occurs, you have to act fast. Your plan should include:

● **Safe exits from your shed and course.**

Designate a meeting place or muster point clearly known by everyone where you can reunite with staff and anyone on site. Also make sure you have a pre-determined clubhouse contact so that the whole facility, not just the course staff, will know what's happening and that everyone is okay;

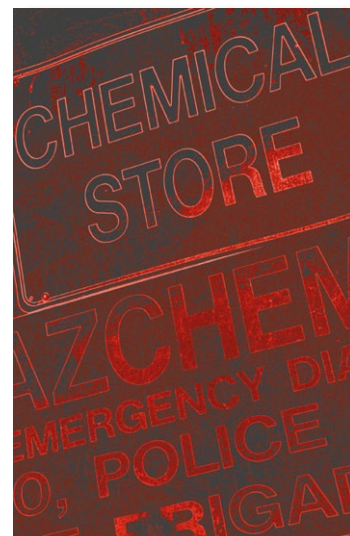
● **Get an emergency kit.** There's no time to collect supplies when zombies are on the prowl! Make sure to assemble and always have easily accessible emergency equipment or kits (such as spill and first aid kits) for your shed, office and course vehicles. They should contain what you need to help as a minimum in an emergency.

In the British Columbia example, the month of May (spring time) was chosen to run the 'zombie awareness' campaign. The reason for this was that in cult zombie films such as Night of the Living Dead and Dawn of the Dead, spring was the most popular time for zombie attacks. Translating that across to a turf scenario, think about what time of year you would most likely fear a WHS accident happening, or what type of work on course do you fear demonstrates the highest risk for safety preparedness.

## FIRST STEPS

Do you feel, like many superintendents and turf managers, that you will get nowhere with WHS unless you spend days on end wading through paperwork and because of that you perhaps continually put it on the backburner? There is no denying it can be a difficult process, but for your welfare, the club's welfare and most importantly the welfare of your staff, you need to start somewhere.

So where do you start? First it is important to remember that WHS is a work in progress and is best tackled in small steps. Keep it simple and do a few things each week or each month that over time builds up your WHS arsenal. As it evolves, you will gradually notice that your position improves. If it becomes too arduous, ask the club or membership for assistance – you never know a member might work in a compliance related industry.



**In a golf course or turf management facility scenario, as with the threat of a zombie attack, knowing the risk within your area is critical**

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It is also important to spread the load. Having a WHS rep is undoubtedly an important first step, but rather than delegate that to one member of staff, use a couple of staff members and rotate. If an apprentice shows aptitude, why not get them involved and bestow some added responsibility to their role. The key thing as a superintendent is to involve your staff from the outset. By involving everyone you help to foster a safe work culture which hopefully everyone will buy into and eventually take ownership of.

Other simple starting points include having a safety diary and recording PPE bought and distributed and getting some standard operating procedures in place. Most of all keep things simple and try to be as consistent as possible.

## EVOLVING YOUR SYSTEM

So once you have started down the road to improving

your WHS arsenal to help you ward off those pesky zombies, what are some of the simple measures to keep the process and your system evolving? As mentioned above, it is as simple as allocating 15-30 minutes per week to run through a standard operating procedure with all staff or undertake a risk assessment. The key thing is that there must be a commitment to do it each week!

Here are some ideas that you can implement, along with a list of specific do's and don'ts contained in the table below:

- Put safety and environment management into the weekly planner, allocate time so it has to be addressed and can't be ignored;
- Staff must take ownership of the system. Consistent daily reminders and signatures go a long way. It makes the staff aware that safety must work both ways;

# WHS SURVIVAL GUIDE – THE DOS AND DON'TS

**Yes, a zombie survival guide is a little tongue in cheek, but pay heed to these dos and don'ts and you'll go a long way to ensuring the WHS practices at your golf or turf facility are up to scratch.**

## THE DOS - WHS PRINCIPLES/STAFF

Conduct a daily five minute meeting with staff to reinforce safety.

Focus on new staff and make sure safety is a high priority with them right from the start.

Create an environment in the workplace where staff can openly discuss problems they have come across and any near misses they have had without ridicule. This enables a more productive discussion as to why it happened and how to prevent future problems.

Keep notes on safety in a diary and discuss, if not on the day, at an end-of-month meeting.

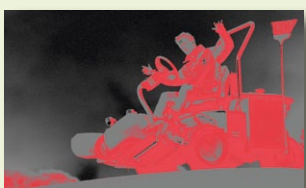
Undertake risk assessments and standard operating procedures as much as possible. It is hard (impossible) to cover all eventualities, but as long as staff and authorities see that things are heading in the right direction it should be fine.

Ensure work boots fit and are comfortable. Get staff to buy their own boots and reimburse. This goes a long way with staff and gives confidence that you are looking after their safety.

Remind staff about applying sunscreen and wearing hats every day.

Be aware that staff WILL take shortcuts in performing tasks. Also be aware that volunteers may have a lax attitude to WHS.

**ABOVE ALL, PRACTICE WHAT YOU PREACH AND RECORD, RECORD, RECORD! IF YOU'RE STILL NOT SURE, RECORD!**



## THE DOS - MACHINERY AND CHEMICALS

Have all machinery maintained regularly and in good working order.

Have procedures available for all machinery to allow new users to understand the real dangers involved and any previous incidents that may have occurred during their operation.

Record chemicals and have MSDS forms and copies readily available. Fill out spray sheets before and after.

Make sure chemicals are always locked away and only the people with appropriate licensing can use the chemicals to the label's instructions.

Train staff and set a standard before using any machine, even a golf cart.

Make sure deliveries, especially chemical deliveries, are signed off and locked up rather than being left on site unattended.

## AND THE DON'TS...

**DON'T** ignore the fact that your workplace is an area that is potentially of high risk.

**DON'T** presume staff know about or have been trained in safety.

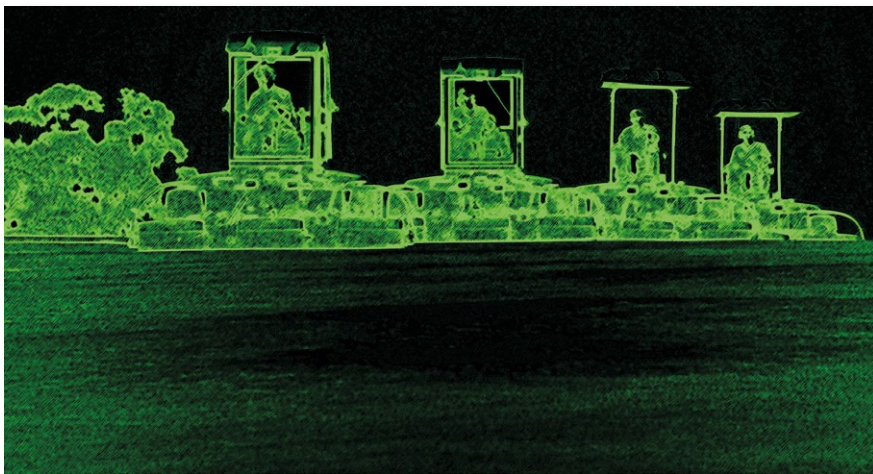
**DON'T** rely on a few signs.

**DON'T** let volunteers onto your course without an induction – they are a big risk.

**DON'T** ignore issues – they must be dealt with or reported to management.



- Allow time for monthly meetings to openly discuss any issues or concerns you staff have about their work or management practices and where potential improvements can be made. Reward staff for bringing any issues to the table;
- Prompt staff before they go out on course in the mornings to keep an eye out for any hazards that need to be reported;
- All issues need to be added to a monthly report to the board of directors. On a similar note, ensure that your turf operations are represented on the club's overall safety committee;
- Use videos from machinery manufacturers;
- Engage all staff and ensure participation at all levels. Schedule events such as training sessions without interruption. Use periods of downtime, such as during the winter, to concentrate on training;
- Nominate a safety topic and talk about it after smoko breaks rather than doing it first thing in the morning. You will find your staff will take more in and give quality feedback. Ideally have meetings on a regular basis where safety topics can be talked about with everyone present. These are an important opportunity to set clear standards that must be adhered to by all staff;
- Share site safety inspections around so that you get different perspectives on safety and so you can educate those that are a little relaxed about safety; and



- Test your system. Give it a health check by completing both internal and external audits.

### POSITIVE EXPERIENCES

Below are some examples of small, yet positive steps from some turf facilities across Australia to remedy particular safety issues or improve the organisation's approach to safety:

### BLIND SPOTS ON THE COURSE

*"We had issues with blind spots on our course as we have to go through tunnels on some holes. We had a group discussion on how we could make these areas safer and got some feedback from all of our staff. Out of this we ended up putting up more*

**Allow time for monthly meetings to openly discuss any issues or concerns you staff have about their work or management practices and where potential improvements can be made**



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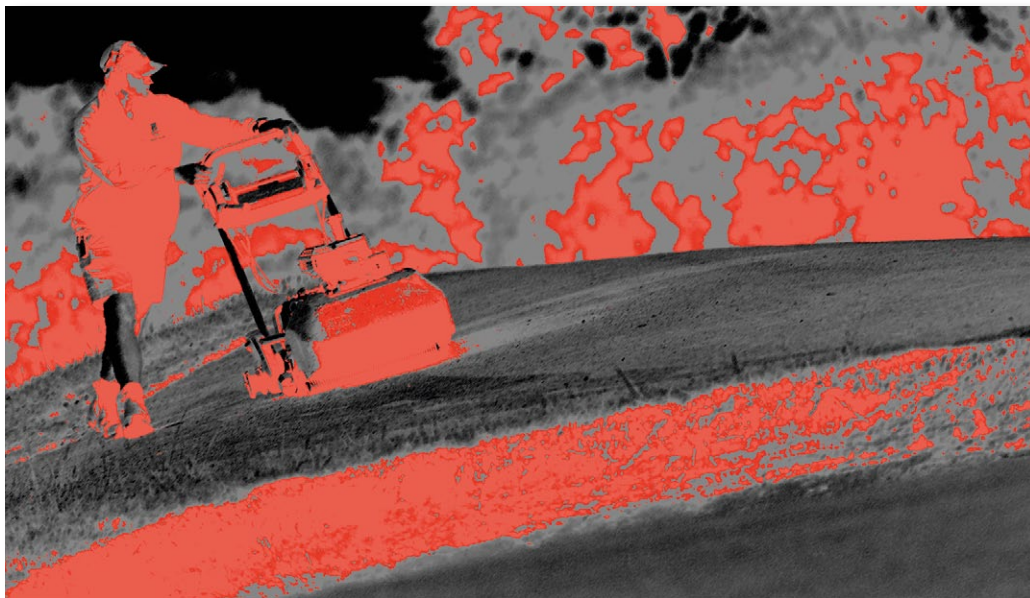
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**Prompt staff before they go out on course in the mornings to keep an eye out for any hazards that need to be reported**



signs, viewing mirrors, arrows and other directional signage painted on cart paths and keeping trees and bushes trimmed to give better lines of sight. All these ideas have helped eliminate the possibility of collisions with golfers and other staff on course."

### CONTRACTOR TAKING OVER TURF DEPARTMENT

"When the club's turf department went to contract, it was taken over by a person with long standing industry association who had not participated in an environmental management system (EMS) or safety management system previously. It was going to be interesting to see how prepared this individual was to learn and participate and engage his staff in these systems. As it turned out a positive outcome has been achieved and the workplace, which is over several locations, is now in good hands with a contractor that is committed to engaging in both the EMS and safety systems of our organisation."

### AN ATMOSPHERE OF SAFE WORK PRACTICES

"I don't have anything extraordinary, but I think most importantly we have an atmosphere of safe work practices. The team are aware of risk areas on the course and the shed – chemical handling/safety, fuel safety, always suggesting safer ways to do things, reading labels/MSDS's, wearing PPE, safe lifting, mowing near waterways/steep areas, adjusting work programmes/times to eliminate exposure to other staff/golfers when spraying, etc. So no real cost, just better awareness and safer practices."

### HAZARDOUS SUBSTANCES

"After arriving at Pennant Hills Golf Club, I made enquiries to see if the local fire brigade had any knowledge of what chemicals were kept on site in case of a fire. They were not aware of the seriousness of what we had. Since then we have built a database with them so they are aware of where the chemicals are kept and also aware of the water reclamation

plant and what chemicals it contains and quantities. They now have keys to all areas and a site map showing all buildings and levels. They also have a complete folder of all our MSDS for each chemical."

### GET GOING

So now you have some tips and pointers, maybe it's time you checked your WHS weaponry to see how prepared you are for a zombie attack. Make sure you follow the above survival guide tips and make sure you have your safety essentials in place. These include:

- An authorised and signed Safety Policy from the club;
- An allocated budget for you to manage safety;
- Some Standard Operating Procedures;
- A safety coordinator;
- Plenty of suitable PPE;
- Regular staff safety training and induction; and
- Regular safety meetings and written minutes.

Having a high level of staff awareness of your safety system will mean that you do not have to manage safety issues on the run, rather there is a structured and proactive approach that can be easily demonstrated to authorities if in the worst case scenario there is a serious accident at your facility.

### ACKNOWLEDGEMENTS

Steve Wait is a senior partner in the e-par group and director of safety. He wishes to acknowledge and thank the following individuals, organisations, golf clubs and facilities for contributing information and insight into the development of this article: Jim Porter, Daryl Sellar, Darren Wilson, Robin Doodson, Hunter TAFE, WorkCover NSW, Safe Work Australia, Pacific Harbour Golf Club, Pennant Hills Golf Club, Canberra Southern Cross Club, Lakelands Golf Club, The Australian Golf Club, Shortland Waters Golf Club, Avondale Golf Club and all zombie survival experts on the internet of which there are, disturbingly, very many. 🌱

**Share site safety inspections around so that you get different perspectives on safety and so you can educate those that are a little relaxed about safety**





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Busselton Golf Club is located 240km south of Perth and has a reputation for boasting some of the finest golfing surfaces in the state. Pictured is the 11th green

# Busselton Golf Club, WA

Aside from the occasional shark attack making the national headlines, Busselton is also home to one very fine golf course. Course superintendent Callum Hitching provides an insight into the running of this Western Australian gem.

**Superintendent:** Callum Hitching (35).

**Nickname:** Whisperer.

**Family:** Wife Kelli, daughter Jaime (10), sons Tyler (9) and Reilly (7), one dog (Jet), two cats (Ginger and Bella), eight chickens and some fish.

**Years as a superintendent:** Six.

**Association involvement:** AGCSA (7 years) and GCSAWA (current golf secretary)

**Career:** Busselton Golf Club (apprentice 2001-04, 2IC 2004-05, superintendent 2006-2010); Sussex Turf Control (works and services supervisor, 2010-11); Busselton GC (superintendent 2011-present).

**Qualifications:** Certificate III in Horticulture Turf Management, Challenger TAFE (winner of the Chipco Shield 'Best Apprentice' in 2004).

**Tell us a bit about your background in turf management and how you came to be at Busselton GC.** Growing up in Exmouth, WA, being outdoors has been in my blood since day dot. From the age of five, afternoons would involve waiting for dad to get home from work and then heading to the local cricket oval where he was the volunteer wicket curator. As a quality fast bowler, being the curator

was his way of ensuring he always had the wicket just how he liked it – firm, fast and full of bounce – and I would help him water, mark and roll wickets to keep them deadly.

By 10 I was at the local golf club, again following dad around playing golf and volunteering. I had my own hole to look after which involved maintaining a sand tee which we converted to couch and raking the sand green every Saturday morning. I would also fly around on an old donated Hustler outfront with an 8 foot deck cutting anything mowable.

My professional golf career was unfortunately not going to happen so looking after a golf course I thought would be the next best thing. After having various jobs (including working on a Kailis prawn trawler out of Exmouth), I returned to Busselton where an apprenticeship became available.

I immediately started canvassing for the position and played a couple of rounds of golf with the new superintendent Eric Dennis. I applied for it and got an interview. I must have done okay because I can remember hearing him tell the interview panel that I was the one he wanted for the job before I had even left the clubhouse!

**Give us an overview of Busselton GC.** Busselton GC is a Murray Dawson-designed golf course which is well bunkered and built on generally flat and sandy terrain with some gentle slopes. The course was opened in 1979, however, the club has been around since 1908 when it was located in town at 'Sussex Green' and doubled as the local watering hole.



The course was originally farming land with some remanent banksia, marri and peppermint woodland. Unfortunately at the time of construction fast growing trees such as Tasmanian and Sydney blue gums were used to define fairways and fill the gaps in between. These have grown into extremely large messy trees which self-prune limbs or drop bark continuously. For this reason some special equipment is required and we hay rake the rough several times a year.

**What are some of the unique features about Busselton GC from a turf management perspective?** As the golf course is built on sand, management of the site is quite easy – if it gets water it grows. Some areas (1ha) have a shallow soil profile over iron stone/coffee rock which holds water during winter. We combat this by coring twice per year to reduce the thatch that builds in these sodden areas (during the winter core we also topdress to firm up the area as they get spongy if you don't fill the holes). The results have been great and more areas remain drier every winter than in the past.

We have been receiving Class A recycled water from the Busselton Waste Water Treatment Plant for 12 years now. Water quality has improved constantly and nutrient levels continue to be reduced. With constant spring and autumn gypsum applications to greens at 1T/ha, sodium levels remain in check. This is despite receiving on average about 1.2T/ha of sodium during the irrigation season. Fairways and roughs have been treated every third year with 2.5T/ha of gypsum which has made an amazing difference to turf quality.

**Take us through your turf management operations and how you have fine-tuned them during your time.** The biggest change has been the improvement in machinery. Most significant has been the improvements in rough mowing. We have gone from using a 72-inch outfront which scalped everything, to a Toro 3500 Sidewinder with rotary heads and now to a Toro 4500 on lease. I don't know how we used to be able to mow all the rough each week, let alone make it look good.

Nutrition and maintaining control over turf growth throughout the growing season is something I have focussed on and trying not to have serious spikes in growth or extreme dormancy. Granular fertiliser is used only to achieve solid growth on traffic areas or to boost leaf length coming into winter, mainly on tees or struggling areas. No granular fertiliser is put out in bulk. Even greens at renovation time receive minimal slow release fertiliser (100kg/ha is plenty) as they are generally growing at a decent pace when not under control from growth regulators.

Budgeting for improvements in all areas is something which I have found very important, even if it is 5-10 years in advance. Once you sow the seed and continue to remind the board of what you will require to do the job to the best of your ability, it



**The Busselton GC crew (from left) Callum Hitching (superintendent), assistant Jonathan Leach, apprentice Jack Barcla and leading hand Nick Leeder**

ensures the money is available when required. The trick is to ask for more than what you need so that you can barter and drop an item or two but still be happy with the result. This has helped me to have a new washdown/chemical mixing area and a specialised bunded fuels and oil storage area built which will serve the club well into the future.

**Any special environmental considerations you have to incorporate into the management of the course?** I report to the WA Water Corporation, DEC, Water and Rivers Commission and the Health Department, so you could say that there are some special environmental considerations!

I have strict nutrient loading limits (kg/ha/yr) of N and P applied to the course. I have never exceeded these limits and find that the allowable application of actual N of 500kg/ha/yr on greens is just ridiculous. As mentioned, I try and keep my N use under 100kg/ha/yr on greens otherwise growth is excessive. The effluent spoon feeds my turf from October-May and is better than any fertigation system. We also carry out monthly coliform testing of irrigation water from the sprinkler head, with the number of coliforms determining the irrigation window or subsequent withholding period after irrigation finishes.

As a proactive move on behalf of the golf club, I instigated a relationship with local environmental group Geo-Catch which involves weed control, removal and planting of native plant species endemic to the Vasse River that borders the course. The golf club won a Catchment Care Award in 2009.

**What are some of the major challenges facing Busselton GC both from a turf and club management perspective?** From a turf management perspective, retaining quality staff



**Looking back up the 1st hole at Busselton**

CONTINUED ON PAGE 81





## AT A GLANCE – BUSSELTON GOLF CLUB

The Busselton Golf Club 5th green. The Pennncross bentgrass greens are maintained between 2-3mm year round, are renovated in spring and needle-tined every 8-10 weeks

**Where in Australia is Busselton and what is the town famous for?** Busselton is 240km south of Perth on the coast in the centre of Geographe Bay and is gateway to the Margaret River wine region. The town lays claim to having the longest timber jetty in the southern hemisphere which stretches a mile out into the bay. The jetty is the focal point of many sporting events including a round of the World Iron Man Series and the annual 3.6km Busselton Jetty Swim (which I completed extremely hung over on a couple of hours sleep after a cricket wind-up.... not my best idea!). Unfortunately we have also been in the headlines for three fatal shark attacks in the region in the last couple of years.

**Staff:** Callum Hitching, 35 (superintendent), Jonathan Leach, 36 (assistant), Nick Leeder, 25 (leading hand) and Jack Barcla, 17 (second year apprentice). We should be running with six this summer, including a casual or labourer and first year apprentice.

**Course specs:** 18 holes, 6160m; 42ha of managed turf. Pennncross greens, Wintergreen couch/kikuyu fairways (the kikuyu is winning!), Wintergreen/kikuyu tees and Wintergreen/kikuyu/perennial ryegrass roughs.

**Cutting heights:** Greens (winter to spring start at 3mm and work down to 2mm just prior to renovations, same deal from summer to autumn – Toro 3250 solid rollers); collars (7mm summer, 9mm winter – Toro 3250 solid rollers); surrounds/rough (35mm all year – Toro 4500); tees (8mm-10mm summer, 12mm-14mm Winter – Toro 3250 solid rollers); Fairways (8mm summer, 13mm winter – Toro 7000).

**Members:** 500 full members, 130 regional, international, FIFO, junior and intermediate.

**Annual rounds:** 23,000 competition, 7000 visitor.

**Major tournaments:** Ladies Geographe Classic (March, 240 players), Men's Pro-Am (May, 160), Men's West Coast Open (September, 240) and The Leaney Cup (November, 240 players)

**Annual course budget:** \$500,000 (incl wages) plus extra if available for capital improvements.

**Climate:** Mild Mediterranean.

**Soil types:** Mostly sand – slightly heavier with

smaller particle size adjacent to the Vasse River. Profiles are also shallow in areas with an iron stone rock layer under parts of four fairways.

**Water sources:** The bulk of our water is provided by the Busselton Waste Water Treatment Plant. The land owned by the golf club originally had a water allocation of 480 megalitres per annum. This has now been reduced to a 240ML license which can be drawn from the Upper Leederville aquifer and another shallow bore used to generate the club's drinking water. Of this water allocation only 5-10ML is used annually to prime the system in spring and also to flush the irrigation system prior to decommissioning over winter. A normal irrigation year is about 200ML.

**Irrigation system:** Rain Bird Stratus II software, 2-wire decoder system with Eagle 700s and full circle and part circle Falcons. One 38KW variable speed Southern Cross, one 35KW full speed Southern Cross and a 7KW Grundfos jockey. Pumps are prostrate with direct suction from impeller to 200mm poly suction line with flapper foot valve.

### Renovations:

- **Greens:** Spring (November) – core with 12mm hollow and solid tines, heavy topdress, dragged and brushed in. 1T/ha gypsum, 100kg/ha application of slow release 21.1.8 or similar, 220kg/ha 0.0.37. We needle tine every 8-10 weeks. Greens are rarely scarified as I prefer to cut them down harder or more often if they do thicken up.
- **Tees:** Every other year – two or three times scarify and scalp mow back as hard as possible, hollow tine core and fertilise with high N granular like urea or sulphate of ammonia for quick recovery. Topdressing of par three tees as and when needed, generally no overseeding required.
- **Fairways:** In the past, renovations included two pass scarifying with 25mm blade spacings, scalp mowing and sweeping between passes, doing nine holes on alternating years. This season will involve scalp mowing with the Toro 7000 and blowing debris off fairways. We will follow this with a 19mm hollow core at 1 inch spacings, cores will be left to dry on the surface and rubbed back into the profile.

**Major disease pressures:** Our major disease issues occur during autumn and winter when shade allows dew to remain on fairways all day in certain places. We lose some leaf to winter fusarium and dollar spot as areas are left untreated. We are combating this by dragging a rope between two vehicles to remove the dew and upset the mycelium. No fungicides are applied due to budget constraints. Greens generally get through the year unscathed with just one preventative fungicide around spring renovations. Maintaining dry profiles through sound irrigation management, daily dew removal and applying high rates of iron to the greens also helps us to control disease. 🌱



Busselton's tees are a Wintergreen/kikuyu mix which are renovated hard every two years



## CONTINUED FROM PAGE 79

on low wages is tough. Unless the employees are really passionate about the game and/or the job and enjoy the lifestyle, it's hard to keep them. All of us here have casual second jobs or work for ourselves outside of work hours.

Looking after the turf is the easiest part of my job. Improving our WHS practices and keeping up to speed with compliance issues keeps things exciting and creates their own challenges.

From a club management perspective the club is dealing with a portion of aging members some of whom dislike change in any form. In the past there was a culture of minimising the increase to membership costs, even keeping it less than CPI. This has changed but a huge effort has been put into diversifying our club's income.

### **Outline any major course improvement works completed recently or currently ongoing/planned.**

In the past we were rebuilding tees that were either hard to keep turf on in winter or of poor quality. From these actions the club's board decided that more formal plans should be created. This turned into a concise course development plan that covered any changes to the general layout of the tee sites, tree pruning, bunkering and potential changes to certain greens.

This plan was done by myself and course director Doug Rowe walking the course with local Perth professional Rob Farley, a long-time supporter of the club's junior programme. Professional Stephen Leaney, who learnt his craft at Busselton, has also given his input into the development plan and is looking to have some more direct input in the future.

In the last couple of years we have rebuilt two tees a year and have completed the 3rd, 5th, 8th, 9th, 11th, 12th, 15th and 18th tees. This winter we are rebuilding and adjusting the length and line of play on the 1st and 13th holes. The tee reconstruction work will allow us the flexibility to have multiple course lengths and ratings.

**The one product I couldn't manage my course without is...** ferrous sulphate heptahydrate. The way iron, at high rates, can dry out surfaces and eliminate the need to use fungicides is impressive. I can use it neat on moss and it burns it to death. It can cover up a multitude of sins on the greens and hide seed head and evens the appearance of the whole surface – you gotta love that!

**Are expectations of course presentation and conditioning any less than that placed on your metro counterparts?** Even though Busselton has the cheapest membership rate for a grassed course in the south west, the expectations from golfers to play on quality surfaces, especially greens, is exactly the same. At the end of the day as long as



that few hundred square metres of bentgrass turf is as close to perfect as you can possibly get it, 99 per cent of golfers will be happy.

I've been fortunate to have been trained by Eric Dennis who made sure I had the skills to grow turf in most situations and prepare greens to the highest standards, which is how he left them to me when he moved on. To not present the greens and the rest of the golf course to the highest possible standard you are able to with your club's budgetary, machinery and staffing constraints, you are doing yourself and your members a disservice.

I am very passionate about giving my club members and visitors the best course I can on a daily basis and feel that my staff share that ambition as well.

**Do you have to be more resourceful as a regional-based superintendent?** We do tend to spend a lot less on our reconstruction work by hiring earthmoving equipment, using our own turf on site and doing everything ourselves. This includes designing the development ourselves, irrigation design and installation using sand on site etc.

We have also developed some specialist tools. For greens renovations we have manufactured a blade which mounts on the front lift arms of a Toro 3250 and can push about 0.25m<sup>3</sup> of cores at a time on any surface. It cost \$500 to get made up and is an amazing tool, especially for cleaning cores off greens without damaging the holes or damaging the turf. Not having been able to afford a blower in the past, we rake the bush with a 100-year-old hay rake that was originally dragged around by a horse!

The original one and only bunker rake that we had had just a rake on the back. We got a member to make a manually operated blade which mounted on pins on the chassis and hung onto the front of the machine. It was a crazy attachment that worked exceptionally well and did some serious shaping work. It has now been replaced with a 2009 model which a member bought for us in lieu of 20 years' worth of membership fees.



**In the last couple of years Hitching and his crew have rebuilt eight tees and this winter are rebuilding and adjusting the length and line of play on the 1st and 13th holes. Pictured are the completed 9th tee (top) and work in progress on the 13th tee (above)**





**Busselton's 18th green**



**Careful planning and budgeting has enabled Busselton to recently construct a new washdown/chemical mixing area and a specialised banded fuels and oil storage area**



**How important are the relationships you have with other regional supers/trade reps?** The other supers down here are obviously very busy with their own small group of staff. We don't get together too often but I communicate regularly with Des Russell (Bunbury GC) and Mark Lewis (the Whisperer's whisperer at Margaret River). We lend and borrow equipment and would help each other out at the drop of a hat.

**Given your location, how do you make sure you keep abreast of the latest turf management techniques and methods?** Even though I am in the sticks, I have been able to attend a couple of conferences and listen to some quality speakers. My 2IC Jonathan is a sponge and is always on the net looking at new products and machinery. The information I get from Danny Hambleton (Globe) and Josh Walker (Nuturf) is second to none.

Doug Rowe has been course director since before I became superintendent. His passion and drive has made my job a lot easier. He has been to every Australian Turfgrass Conference since Hobart (off his own back) and comes back with way too many ideas - some of them are even good!

**What are some of the more unusual requests you have had as a regional superintendent?** I had to remove 60 cows from the course on Christmas Day several years ago after they had been on a rampage across six of our greens the night before. The clean up afterwards lasted several days and the damage hung around for a while longer.

**What have you got in your shed?** More or less a 'red shed'. Two x Toro 3250's (one greens, one tees and collars - we change the height of the heads twice a week), 1 x Toro 7000 (fairways), 1 x Toro 4500 (rough), New Holland Boomer 60hp tractor with loader, rotary hoe, Hardi 600L spray unit, Kubota 3560 72-inch side discharge outfront, Toro 5040 bunker rake, Toro pedestrian ProCore, lightweight Toro Workman, Kawasaki 300cc 4x4 motorbike, topdresser, turf cutter, Tru-Turf roller, Massey 35 tractor and circa 1900s hay rake.

**Which piece of machinery gets trashed the most and if you had a wish list what would be the next major ticket item?** None of my equipment gets trashed anymore - I got rid of those staff! The turf cutter is overworked and gets a flogging but keeps going - it's an old Ings, but a good Ings! I am praying that the blower I budgeted for this year will magically appear at the end of May as projected. I don't ask for too much but when I do ask the board listens which is great.

The old hay rake for raking the debris up in the rough is a tool that I think most golf courses with open treed roughs would love to have. It glides over roots and leaves the rough clean with minimal disturbance to the surface.

**Do you think regional/country superintendents have a better work-life balance than their metro counterparts?** There is always more and more on the 'to do' list and I find I have to say that some jobs are just not going to get done which frustrates me because I like to have everything manicured and make continual improvements to the course. The missus reckons I am at work too much if that answers the question, but if I don't see my greens every day over summer I don't sleep too well.

**The most pleasing/rewarding moment during your time as Busselton superintendent?** Receiving consistent positive feedback from members and visitors on the conditioning of the course is rewarding. Stephen Leaney wrote in a letter to the club that the greens are "consistently world class". It's the simple things like being able to stand on the putting green on a Thursday and take in the club atmosphere and know you've set a standard for yourself that would be considered good enough anywhere.

**Favourite spot on your course?** The smoko room at 1pm with a beer! 🍷



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## THE LAKES ENTERS INTO \$50K 'ENFORCEABLE UNDERTAKING'



**The Lakes Golf Club will contribute \$50,000 to Randwick City Council for bush restoration as part of an enforced undertaking following an EPA investigation into pesticides use at the club**

**T**he Lakes Golf Club in Sydney has committed to an 'Enforceable Undertaking' which will result in \$50,000 being paid to Randwick City Council for environmental works following a NSW Environment Protection Authority (EPA) investigation into pesticides use in 2012.

In a press release issued in late April by the EPA, the investigation also resulted in two penalty notices totalling \$1150 being issued to The Lakes' former golf course superintendent for using pesticides in contravention with the label and not keeping records for that particular pesticide. The Lakes Golf Club, which has hosted the past three Australian Opens, was also required to pay \$8500 for the EPA's investigation and legal costs.

"Regulatory action was taken following an investigation at the golf course that involved the misuse of pesticides by the former golf course superintendent at the golf course contrary to the Pesticides Act and the incorrect disposal of chemical waste contrary to the Protection of the Environment

Operations Act," explained acting chief environmental regulator Craig Lamberton.

"The situation involved the inappropriate use of the insecticide Vydate and the disposal of pesticide waste in a manner that may have polluted waters. These actions had the potential to cause harm to the environment and were rigorously investigated by EPA staff."

According to the product label, Vydate is a broad-spectrum Group 1A carbamate insecticide/nematicide (active constituent 240g/L oxamyl) and is registered in Australia for the control of nematodes in banana plants, capsicums and tomatoes and banana weevil borers in banana plants.

Lamberton said The Lakes Golf Club co-operated fully during the EPA investigation by providing all documents and information requested by the EPA and making available all greenkeeping personnel and senior executive for interview.

"The club acknowledged the concerns of the EPA and has implemented measures

to ensure that inappropriate practices cannot recur," said Lamberton. "These measures include improvements to accountability, reporting responsibilities and compliance auditing, creating a new reporting mechanism and improved training.

"The club also agreed to make amends for its actions by entering into the 'Enforceable Undertaking' which requires them to contribute \$50,000 to Randwick City Council for the bush restoration programme at Randwick Environmental Park and the Chifley Remnant Bushland on Bunnerong Road."

An enforceable undertaking is defined by the EPA as "a constructive alternative to prosecution. It allows an alleged offender to voluntarily enter into a binding agreement to undertake tasks to settle a contravention of the law and restore the harm caused to the environment and the community. It implements systemic change within a business or by an individual to prevent future breaches of the law... The actions in an enforceable undertaking must deliver benefits to a business, industry sector or community that go beyond mere compliance with the law."

"Overall this is a good outcome, with The Lakes Golf Club implementing upgraded systems to improve their environmental performance and contributing a significant sum of money to bush restoration in the local community," said Lamberton.

## ROYAL MELBOURNE TO HOST MASTERS FOR FIRST TIME

**T**he Royal Melbourne Golf Club's famed Composite Course will play host to the Australian Masters for the first time in the club's history from 14-17 November, 2013. It will be the first time in the tournament's 35-year history that it has ventured to Royal Melbourne and joins the likes of fellow sandbelt courses Victoria and Kingston Heath which have hosted the event since it shifted from its permanent base at Huntingdale Golf Club back in 2009.

"We are very much looking forward to hosting the 2013 Australian Masters," says course superintendent and AGCSA member Richard Forsyth. "The Presidents Cup in November 2011 and the Women's Australian Open in February 2012 were successful events but were played on

immature turf following the resurfacing programme undertaken. I am confident we can improve on the turf quality in November 2013 and produce playing surfaces of the highest quality.

"We have a good mixture of experienced and new staff at Royal Melbourne looking forward to preparing the best possible course for the professionals. We are working on getting the best cover of grass on all areas going into winter and doing the appropriate programmes to bring the turf out of dormancy in good shape for a November tournament, which is often challenging for couch in Melbourne."

As well as the 2013 Australian Masters, Royal Melbourne has also been confirmed as host venue for the 2014 Asia-Pacific Amateur Championship

to be held in the spring of that year. The 72-hole stroke-play event has been played since 2009 and is conducted by the Asia-Pacific Golf Confederation. The Masters Tournament (US) and The R&A provide support to the event with the winner receiving an invitation to play in the Masters Tournament at Augusta National Golf Club, and, together with the runner-up, also earns a place in International Final Qualifying for The Open Championship.

## OPEN RETURNS TO ROSE BAY

Golf Australia also confirmed in April that the 2013 Emirates Australian Open will be played from 28 November – 1 December at Royal Sydney Golf Club. After three consecutive years at The Lakes Golf Club, the \$1.25 million tournament returns to the Rose Bay layout for the first time since 2008.

The 2013 event will be a first for Royal Sydney course superintendent Steve Marsden who arrived at the club in December 2012 after nearly four years at Cape Kidnappers in New Zealand. Marsden is by no means a stranger to tournaments, however, and during his time at Cape Kidnappers prepared the course for the 2008 and 2009 Kiwi Challenges.

It will be the 13th occasion Royal Sydney has hosted the Open and will be the eighth consecutive year that the national tournament has been held in Sydney. The NSW Government, through Destination NSW, has established a partnership with Golf Australia to stage the Open in Sydney until 2015,



with The Australian Golf Club announced in early March as the 2014 venue.

This year sees a reshuffling of the running order of the three big Australian tournaments. Traditionally scheduled as the last event, the 2013 Australian PGA Championships, to be played at new venue RACV Royal Pines (superintendent Lincoln Coombes), will tee off first from 7-10 November. The Tour then moves to Royal Melbourne for the Australian Masters with the Open the last on the calendar.

The three-week, \$2.1 million Western Australian leg of the PGA Tour of Australasia has also been locked in, the crowning event being the return of the Perth International to Lake Karrinyup Country Club (superintendent Trevor Strachan) from 17-21 October. After successfully hosting the inaugural tournament last year, the \$110,000 WA Goldfields PGA Championship returns to Kalgoorlie Golf Course from 3-6 October, with Mt Lawley Golf Club (superintendent Glenn Cross) hosting the WA Open Championship from 10-13 October. 

**Royal Melbourne's Composite Course (pictured is 17 East) will play host to the Australian Masters for the first time in 2013**

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# BAYER NOTCHES UP 150 YEAR MILESTONE



**Bayer research manager Jyri Kaapro leads a group through a trial site at the Turf Research Field Day in February**

**A**GCSA Silver Partner Bayer is notching up its 150 birthday in 2013 and to celebrate the company is conducting a series of events in its major markets across the globe, including Australia.

The company was founded as a general partnership in 1863 by dye salesman Friedrich Bayer and master dyer Johann Friedrich Wescott. It now has extensive expertise in the health of people, animals and plants and employs more than 110,000 people across the globe, including some 850 in its Australian and New Zealand operations.

"Bayer can look back on a long and highly successful history as an inventor company," chief executive Dr. Marijn Dekkers says. "In the past 150 years, Bayer inventions have time and again helped improve people's quality of life. This great tradition is also our commitment to the future, entirely in line

with our mission of 'Bayer: Science for a Better Life'.

A focal point of Bayer research is turf and ornamental management (herbicides, fungicides and insecticides). From selling Antinonin, the world's first synthetic insecticide to control the nun moth, in 1892, today Bayer Crop Science specialises in the development and marketing of pest, weed and plant disease control solutions. Some of the key products in its Australian turf management portfolio include Tribute, Dedicate, Banol, Chipco Signature, Destiny, Initiator, Merit, Ronstar, SilvaShield, Spearhead and Confidor.

Australia is one such country in which Bayer has a significant research presence and in late February members of the turf industry were able to view the latest trials at the 2013 Turf Research Field Day at Cobbity, NSW.

Attendees were split up into three separate groups led by Jyri Kaapro (Bayer research manager), John Hall (Bayer business development manager) and Paul Conradt (Bayer national sales manager) and were shown the many research trials the company is conducting. Among those included a sneak preview of Bayer's upcoming new turf products, as well as an examination of kikuyu, Parramattagrass and summergrass control with Tribute.

Guests were also shown summer turf fungicide programmes, ornamental trials with Bayer's new fungicide Scorpio, tree injection with SilvaShield and a demonstration of the tolerance of Bayer herbicides across a range of turfgrass varieties at the University of Sydney Turf Research Facility.

**For more information on Bayer and its 150 year celebrations visit [www.bayer.com](http://www.bayer.com)**



**Syngenta's new triple action fungicide Instrata**

## SYNGENTA'S TRIPLE THREAT

AGCSA Gold Partner Syngenta has added Instrata turf fungicide to its turf management product range. Released in late 2012, Instrata joins a number of other products the company has launched in the past 12 months, including Casper broadleaf herbicide and Agador nematocide/miticide.

Instrata contains three active ingredients – 362g/L chlorothalonil, 57g/L propiconazole and 14.5g/L fludioxylin – offering a unique triple mode of action to combat common fungal diseases such as anthracnose, brown patch, dollar spot, helminthosporium diseases and winter fusarium on golf course and bowling greens.

The systemic action of the propiconazole component delivers rapid clean out of internal transport tissues which is especially important in curative situations. The chlorothalonil and fludioxylin components attack germinating spores and developing fungal mycelium to clean and protect external surfaces.

Instrata should be applied at 18L/ha and provides up to 28 days residual control. It can be

used across a broad range of warm- and cool-season grasses including common and hybrid couchgrasses, buffalograss, kikuyu, bentgrass, fescue and perennial ryegrass.

**Instrata is available in a 10L pack size and to download the label, MSDS and fact sheet, visit [www.syngenta.com/country/au](http://www.syngenta.com/country/au).**

## GRINDING IT OUT

Toro has added to its line of tree care equipment with the release of the STX-38 stump grinder. Designed for durability and performance in tough operating conditions, the STX-38's fully hydraulic operation means no chance of belts breaking or slipping and no tension adjustments. It has a large 56.5cm diameter cutting wheel, a cutting depth of 45.7cm below grade and a cutting height of 89cm above grade.

The STX-38's new Intelli-Sweep feature automatically slows the sweep speed of the cutting head based on the load of the wheel, so heavy cutting loads won't bog down the engine. Useability is a key feature as well and the STX-38 model

features Toro's patented TX-Style control system with two user-friendly levers to operate all traction and grinding functions. An armrest near the joystick also reduces operator fatigue.

The STX-38 has tracks instead of wheels, which provide a large footprint, low centre of gravity and greater manoeuvrability and stability. It can be operated in wet, muddy, hilly and soft terrain and tyre ruts and flat tyres are eliminated. The track design climbs curbs and allows for zero turn capability and combined with a powerful 38 HP Kohler® air-cooled petrol engine, the stump grinder can travel at speeds up to 8kph.

Toro stump grinders all come with a two-year, 1000-hour commercial warranty which can be extended to five years and 5000 hours by purchasing a Toro Protection Plus plan.

**The STX-38 stump grinder can be purchased through the Toro Australia construction dealer network. Visit [www.toro.com.au](http://www.toro.com.au) to locate your closest dealer.**



## TECHNIGRO RELEASES FIELD GUIDES

Queensland vegetation management company Technigro has released a series of field identification guides which it hopes will significantly improve the ease with which both professionals and the public can identify invasive species and undesirable flora.

The Technigro Field Guides, compiled by weed expert and consulting scientist Dr Sheldon Navie, profile all of the major and growing threats in southeast Queensland, giving information such as distribution, habitat and look-alikes, as well as growth and flowering calendar. Each of the three field guides covers a different topic – common grasses, turf weeds and declared plants. Featuring large full colour images these guides contain comprehensive information that is both accessible and highly detailed.

Technigro chief executive Nick Bloor says the ID guides have the capacity to play a significant role in the easy identification of a variety of species, both native and introduced. "In the last 24 months, we've seen the outbreak of several weed species that propagate rapidly, such as pickerel weed and coral creeper," he says. "In the hands of landholders and industry professionals, these guides could be the difference between a small outbreak and one that affects the whole corner of this state."

**For more information or to purchase the field guides, visit <http://www.technigro.com.au/fieldguides.php>**



**Technigro has released a series of field identification guides covering common grasses, turf weeds and declared plants**

## INDUSTRY APPOINTMENTS AND ANNOUNCEMENTS



### COLES TORO'S NEW NORTHERN NSW SALES MANAGER

**Matthew Coles** (pictured) has been appointed as Toro's new area sales manager – golf for northern NSW. Coles has a long association with the golf turf industry and arrives at Toro after a period with David Golf & Engineering and previous positions ranging from assistant superintendent to superintendent around the Newcastle and Sydney regions. Coles can be contacted on 0427 266 050 or by email [matthew.coles@toro.com](mailto:matthew.coles@toro.com).



### DOODSON TAKES ON ADDITIONAL ROLE WITH E-PAR

Sanctuary Cove Golf & Country Club course superintendent **Robin Doodson** (pictured) has joined the e-par Group as Queensland area manager providing training, auditing and best practice advice to programme members. Doodson, who has been superintendent at the 36-hole Sanctuary Cove complex since 2009, can be contacted at [robin@epar.com.au](mailto:robin@epar.com.au) or on 0466 711 571.

### EQUIPMENT SOLUTIONS OFFERS FULL BLEC RANGE

Equipment Solutions has increased its Blec equipment range within Australia. In addition to the Blec Multi-seeder, Equipment Solutions can now offer the Blecavator ground preparation, processor and stone buriers, the Blec Groundbreaker de-compaction aerator, and the Blec Multivator, a machine which de-compacts, distributes soil/sand and topdresses in a single pass. For more information contact Equipment Solutions on (02) 8709 9000 or email [mike.pauna@equipsolutions.com.au](mailto:mike.pauna@equipsolutions.com.au).



### SMITH JOINS DAVID GOLF NSW TEAM

**Greg Smith** (pictured) has been appointed as a new sales executive with David Golf's NSW team. Smith has been involved in the turf management sales game for the past 12 years, working with Rain Bird and most recently Advanced Seed. Before his switch to the trade, Smith was superintendent for 15 years at Pambula-Merimbula Golf Club. Smith can be contacted on 0438 885 422 or [gregs@davidgolf.com.au](mailto:gregs@davidgolf.com.au) or mobile.

### DINT'S NEW LOOK WEBSITE

Golf course hardware manufacturer and supplier Dint Golf Solutions has recently unveiled a new-look website. The user-friendly website contains a number of new features and allows customers to register and then purchase on line. Another feature is a media section where visitors to the site are able to view videos on key products. Visit the new website at [www.dint.com.au](http://www.dint.com.au).

### PAGET SHIFTS TO NSW TERRITORY MANAGER ROLE

**Craig Paget** has shifted from the agronomy services manager role to NSW territory manager with Nuturf. Paget was former course superintendent at the Troon-managed Pacific Dunes Golf Club prior to joining Nuturf in mid-2012. Paget can be contacted on 0419 476 827.

### SUSTAINABLE TURF NOW IMANTS DISTRIBUTOR

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The Turf Queensland project put turf farms through an eco-efficiency assessment process

Jim Vaughan from Turf Queensland outlines the association's recent benchmarking project which has looked into improving productivity within the state's turf grower community.



# Growing efficiency

was reassessed and compared against the original metric to determine performance changes.

Farms managing their delivery vehicle routes and driver behaviour will achieve diesel consumption reductions and savings. Farm 1 reduced its overall diesel consumption by 100,027 litres and saved \$101,296.

Farms using a higher mix of organic to manufactured fertiliser will use a greater volume of product but it will be more cost effective. Farm 2 highlights the opposite. They reduced overall fertiliser consumption by 29 per cent, but increased the ratio of manufactured product in the mix, costing an additional \$11,993 for the period.

Electricity consumption for all farms increased. This is reflective of the climatic conditions experienced during the project, with the baseline assessment year an extremely wet period, then the reassessment period being dryer. Increased irrigation hours needed during the period therefore increases the volume of electricity consumed for pumping. 🌧️

| Assessed Metric                         | Outcome       |
|-----------------------------------------|---------------|
| Farm 1: Overall diesel consumption      | 62% decrease  |
| Farm 2: Overall fertiliser consumption  | 29% decrease  |
| Farm 3: On-farm diesel consumption      | 12% decrease  |
| Farm 4: Overall electricity consumption | 249% increase |
| Farm 5: Overall fertiliser consumption  | 35% increase  |

**T**urf Queensland started its Eco-Turf project in September 2011 with support funding from the Department of Environment and Heritage Protection. The project focused on taking a sample group of Queensland based turf production farms through an eco-efficiency assessment process to identify opportunities for operational improvements.

Embarking on the journey of integrating sustainable business practices into the industry, Turf Queensland established a project oversight committee supported with a project charter and produced a sustainability policy. The project consisted of a six-phase process including establishing a trial group, conducting baseline assessments, setting key indicators, undertaking improvements, reassessing and benchmarking.

Assessment took the form of quantitative data analysis using square meters of land under production as the unit indicator. Indicators were set and benchmarks calculated for the group and sub-group categories based on size. Over an 18-month period, the project assessed operational baseline for electricity, diesel and fertiliser consumption on turf farms. At the 12-month mark, farm performance

## NSW TURF GROWERS GET GOING

**N**SW turf growers have rallied together over recent months to help strengthen the NSW Turf Growers Association (NSW TGA) and its future endeavours.

At the AGM held late last year, a number of new faces joined the executive committee including incoming president **Stephen Vella** (A-View Turf) and vice-president **Paul Saad** (Southern Cross Turf) both joining previous committee member **Anthony Muscat** (Greener Lawn Supplies) who has taken up the treasurer's role.

Industry stalwart and association life member **Peter McMaugh** (Turfgrass Scientific Services) once again accepted the position of secretary and past-president **Greg Miller**

(Millers Turf) offered his guidance as part of the general committee alongside previous member **Jason Muscat** (Hi-Quality Turf). Other newcomers to the committee include **Troy Muscat** (Active Turf), **Joseph Muscat** (Greener Lawn Supplies) as well as **Patrick and Michael Muscat** (Green Life Turf). Subcommittee participants include industry representatives **Philip Cooper** (Nuturf) and **Tom Venables** (Ace Ohlssons).

Speaking on the appointments, Vella said that he was encouraged to see some new blood on the NSW board and thanked the previous committee for their efforts.

"I can't speak highly enough of our previous president **Bob Jeffries** along with

Peter McMaugh and what they have done," said Vella. "They have put a huge amount of work into water issues and their efforts have undoubtedly helped assure water use rights for years to come. They've also made recent inroads into chemical use issues."

A priority for the new committee is continuing the work of the previous executive. "We're keen to work closely with Sydney Water, the EPA and the DPI among others," Vella said. "We've met with the EPA and their attitude is quite promising. They want us to do the right thing as chemical users and are willing to work with us to get correct-use messages out to the growers."

- Dave Raison

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**Soprano**  
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**Lake Karrinyup Country Club (pictured second from left is irrigation technician Chris Langford and third from right course superintendent Trevor Strachan) became the first WA club to achieve Waterwise certification in February**



**Wembley Golf Complex superintendent Darren Wilson (right) with WA Minister for Water the Hon. Terry Redman, MLA (middle) and GCSAWA board member Neil Graham**



**Perth Golf Club course superintendent Michael Dennis (left) and president Greg Higham were on hand to accept the Metropolitan Club of the Year Award at February's WA golf industry dinner.**

After a very warm and long summer that continued into April, I believe most superintendents are well and truly enjoying the cooler weather to hit the state recently, with some courses even enjoying some rain.

The GCSAWA Waterwise initiative is slowly kicking off and we are delighted to see two of the state's premier golfing facilities attaining Gold certification. Lake Karrinyup Country Club (superintendent **Trevor Strachan**) become the first to achieve the Waterwise tick of approval in February, with the state's busiest public facility Wembley Golf Complex (superintendent **Darren Wilson**) joining them a few weeks later. The WA Minister for Water, the Hon Terry Redman MLA, was on hand to present Wembley its certificate of recognition.

In order to achieve Gold certification, both clubs had to meet the stringent criteria that have been established by the Waterwise initiative. The programme has three tiers of recognition – Gold, Silver and Bronze – and in order to attain the highest level both Karrinyup and Wembley had to not only meet the criteria of Bronze and Silver but also demonstrate an advanced level of water management best practice at their facilities. The GCSAWA congratulates both clubs on a wonderful achievement.

The 2013 Western Australian Golf Industry Gala Dinner was held back in late February and was presented and hosted by Golf Management WA, PGA of Australia WA/NT Division, the GCSAWA and Golf WA.

It proved to be a great night for the Royal Perth Golf Club with both the club and course superintendent **Michael Dennis** the big winners. Dennis was named the GCSAWA Superintendent of the Year, sponsored by Jacobsen distributor McIntosh & Son, and joined with Royal Perth president **Greg Higham** to accept the award for Metropolitan Golf Club of the Year.

Royal Perth collected the metro club award ahead of Cottesloe Golf Club (superintendent **Simon Bourne**) and Secret Harbour (superintendent **Allan Devlin**), while Dennis joined a long list of leading WA superintendents to collect the GCSAWA's highest honour. In an article on the Royal Perth website in the weeks following the awards, the club praised the efforts of Dennis in winning the award.

"Michael is a highly respected and valued member of the club's management team and amongst his industry peers. Under his significant skills, guidance and diligence, the Royal Perth Golf Club course has undeniably become the envy of his fellow course superintendents in WA and the unsolicited high praise he consistently receives from professional and amateur golfers Australia wide, is indeed a tribute to these significant attributes. Michael amply met the criteria required for this award and the club is proud of his achievements."

Royal Perth's two awards were among 16 handed out on the evening, which was held at the newly refurbished Crown Casino. The other significant winners on the night were:

- Pro-Am of the Year: Margaret River Golf Club. (Course superintendent **Mark Lewis** and assistant superintendent **Will Norris** were on hand to accept the award with manager Matt O'Connell);
- Regional Golf Course of the Year: Kalgoorlie Golf Course (from Spalding Park Golf Club and Bunbury Golf Club); and
- Toro GCSAWA Apprentice of the Year: **Jordan Beck** (Melville Glades GC)

The GCSAWA Super Series has kicked off well with the first round held at the beautiful Western Australian Golf Club. Thank you to host superintendent **Idris Evans** and his staff for an immaculate course which was enjoyed by nearly 30 players. The second round was at the picturesque Nedlands Golf Club where superintendent **Aaron Petrovski** and his crew worked hard preparing the back nine for the day only to find out that we were to play the front nine! There is no round in May as we have the Management Challenge on 27 May at Cottesloe Golf Club which I am sure will be looking its best for us amateurs to carve up.

Looking ahead, the GCSAWA will conduct its biennial Margaret River Conference from Sunday 4 – Wednesday 7 August. Most of the week has been booked now and we are in the process of locking away some guest speakers to go with our local contingent of presenters. It is always a fantastic event and I encourage you all to attend.

**DES RUSSELL**  
PRESIDENT, GCSAWA

**A**t long last, autumn weather has arrived in the West after what can only be described as an arduous summer where temperatures were just relentless. You can almost watch the turf grow before your eyes now that the daytime temperature has dropped down to plus or minus a few degrees of 30°C and the percentage of humidity increased. We can only hope that this herald of an approaching winter also brings those elusive rains. Fingers are crossed that 2013 is the year our dams are filled and the aquifers and lakes replenished.

The STA (WA) started the year off where it should have ended last year by having its end of year social day in February, watching Ricky Ponting and his fellow Tassie Devils defeat the Western Warriors at the WACA. Oh well, the beer was cold and the crowd was great, all that is really needed for a good day out.

In early April, we were fortunate to arrange for **Professor Mike Hodda** to spend a day presenting on parasitic nematodes in turf. Dr Hodder is Australia's pre-eminent nematologist, currently based in CSIRO's Black Mountain labs in the ACT, and it was an invaluable opportunity for members of the WA turf industry to benefit from his 30-plus years of knowledge on these creatures. Joining

him was **Kerrie Davies** from the Waite Research Institute at the University of Adelaide. The day was very rewarding, especially during those moments of interaction and debate between the audience and the speakers.

Plans are well underway for the Perth turf industry's next major event. The 2013 WA Turf Seminar & Trade Expo will take place on Wednesday 17 July. Please note that the venue has now been changed to Tompkins Park Function Centre in Alfred Cove. An array of brilliant speakers has been lined up to provide a full day seminar and they will present on the latest innovations and research in managing the increasing challenges of maintaining public open space turf areas in our state.

Many thanks must go to the organising subcommittee from the UWA Turf Industry Research Steering Committee for their extra assistance following the unfortunate resignation of **Louise Edmonds** as WA turf's industry development officer. Recruitment for a replacement is in progress with high hopes of employing someone as soon as possible. An interesting year ahead without doubt!

**TONY GUY**  
PRESIDENT, STA WA

## NSWGCSEA

**T**he turf industry in NSW has been on a roller coaster ride over the past 12 months with the EPA investigation into the off label use of chemicals. The spotlight has been directly on golf courses and superintendents. One part of that has now come to an end with the EPA imposing fines on one club.

The state of NSW has some of the strictest pesticide use regulations in the country. This has been put together to protect the environment and, as the end user, it is our responsibility as superintendents to adhere to these regulations in order to protect the environment and maintain a high standard of professionalism.

The NSWGCSEA Board, especially through the efforts of previous president Craig Molloy, has worked hard with the EPA to bring about the Environmental Pilot Program with 42 golf clubs in NSW now part of that initiative. This has created better awareness within NSW, but there is still a lot we can do to enhance the environmental standing of golf in the public eye. The last 12 months have certainly shown the importance of record keeping and monthly reports to Boards in protecting yourself and your staff.

The NSW Board will now continue with further developments with an EMS (Environment Minimum Standard) which will cover the responsibilities of directors, managers and superintendents. Recently the NSWGMA hosted a meeting at Penrith with the attendance of the NSW EPA, NSW Golf and e-par. It was widely discussed that the current financial pressures on all organisations would mean the roll out of an EMS would be at a negative cost to clubs.

On a lighter note, the NSWGCSEA annual Ambrose Golf Day at The Vintage Golf Club attracted 130 players. This event has always had a great following and host superintendent **Steve Harris** and The Vintage staff always present the course at a high standard.

The AGM and Rube Walkerden day this year will be held at the recently constructed Greg Norman-designed Stonecutters Ridge Golf Course. I am sure that host superintendent **David Aplitt** and the staff will have the course testing all competitors on the day. The event has already shown interest from a lot of people and I would advise all members to get their registrations in early.

**Charles Dunlop** from Duntryleague Golf Course in Orange, NSW has been bestowed

the NSWGCSEA Vince Church Graduate of the Year Award. Dunlop beat fellow class of 2012 finalists **Jacob Pease** (Pacific Dunes GC), **Mitchell May** (Mona Vale GC), **Luke Bubb** (New Brighton GC) and **Louie Sutherland** (Gerringong GC) and will now go on to represent the NSWGCSEA in the final of the AGCSEA Graduate of the Year Award.

The presentation ceremony was held at the stunningly rebuilt Manly Golf Club, with all finalists chosen from various TAFEs across the state.

As part of the day, the students were treated to a golf course tour by host superintendent **Michael Bradbery**, while NSWGCSEA life member **Peter McMaugh** also donated his valuable time and gave a heartfelt presentation on the value of education. Golf NSW board member **John Robinson** was also in attendance and congratulated the finalists on behalf of the state golfing body, which has been a strong supporter of the award. The NSWGCSEA congratulates all finalists and wishes Charles all the best for the national award.

**MARTIN O'MALLEY**  
PRESIDENT, NSWGCSEA



## STA ACT REGION



Interviews for the STA ACT Region Graduate of the Year Award were conducted in late February and the winner was announced at the recent STA Golf Day held at Gold Creek Country Club (host superintendent **Scott Harris**). I am pleased to announce that **Luke Jorgensen** from The Federal Golf Club won the award which he collected from **Rob Cooper** of major sponsor Living Turf.

Luke thanked his former superintendent **Stephen Lording**, current superintendent **Mark Thomson** and all of his work colleagues for their guidance over the last four years. Luke will now represent the ACT region in the national final of the AGCSA Graduate of the Year Award, presented in partnership with Toro (see Luke's profile in this edition's conference guide – page 46-47).

The STA Golf Day proved to be a great success. Under picture perfect blue skies, around 80 greenkeepers and sponsors enjoyed the hospitality of Scott Harris and the staff from Gold Creek who had the course in great order. Thank you to all the sponsors who helped make the day possible and we are already looking forward to this event again next year.

A reminder that the annual STA ACT Region seminar is set down for Wednesday 24 July. A wide variety of topics have been organised for the day with something of interest for everyone. Registration details will be passed on in the next edition of ATM.

**DANNY HULL**  
COMMITTEE, STA ACT REGION

## NZGCSA



PHOTO COURTESY OF STUART MUNRO, WANGANUI CHRONICLE, NEW ZEALAND

**Wanganui Golf Club superintendent Barry Shannon has notched up 30 years service at the club**

With a record-breaking summer of drought now behind us, most of New Zealand has been experiencing rainfall of some sort recently, which has been a welcome relief with most golf courses returning to their natural green colour.

In early May the NZGCSA held a regional delegates meeting where a number of key issues were discussed. With eight out of nine regions represented it is pleasing to see that each is active in regular field days and education of its members which benefits the industry as a whole.

The next day saw the NZGCSA Board meeting held with the upcoming New Zealand Turf Conference and Trade Show the main focus. We encourage all of our members to attend this biennial event which is being held in Hamilton at the Claudelands Convention and Exhibition Centre from 17-18 June 2013, a week before the Australian conference. For more information or to register visit [www.turf2013.co.nz](http://www.turf2013.co.nz)

The 2013 NZGCSA Awards are nearing completion and these have been well supported by members with a good number of applications received. The NZGCSA Excellence Award, supported by John Deere, has seen the three finalists judged at their respective courses with the winner being announced at the New Zealand Turf Conference. A special thanks to NZGCSA life members **Nigel Lloyd** and **John Humphries** for judging the award.

The NZGCSA Graduate of the Year Award, supported by Powerturf, saw five of the country's top apprentices take part in the finals day held at Pakuranga Country Club in Auckland. The finalists were tested on both their practical skills and theoretical knowledge. Although daunting when competing against your peers all of the finalists will benefit from the experience of participating in the final judging process. This year's winner will receive a trip to the USA to further their turf management knowledge.

The NZGCSA Environment Award, supported by PGG Wrightson Turf, has seen several clubs submit an application with judging to start shortly for the selected finalists. This year's winning golf club and course superintendent will benefit from the new prize format.

Finally, congratulations to NZGCSA member **Barry Shannon** on achieving 30 years service as superintendent at Wanganui Golf Club. Barry is a moderator for the NZGCSA and has trained a number of apprentices during his time, passing on his skills and knowledge to others in the industry.

Bestowed life membership of the Manawatu/Wanganui superintendents association earlier this year, Barry has been a regional delegate to the NZGCSA for many years. However, his biggest contribution has been his moderation of apprentices/trainees and assessors throughout the whole of the North Island for over 10 years. All of this work has been undertaken on a volunteer basis in his own time and often while on annual leave in order to help the NZGCSA fulfil its obligations with the training organisation. Barry was also bestowed a distinguished service award from the NZ Sports Turf Institute for service to the industry in 2009.

A handy golfer who plays off scratch, Barry has won his club championships on three occasions (the last coming in 2001), the Manawatu Open twice and at 55 years of age represented New Zealand at the Asia Pacific seniors.

Barry's milestone at Wanganui Golf Club was enough to make the headlines of the local Wanganui Chronicle with the photo left also being splashed across the pages and the newspaper's website. The club organised a special Greenkeeper's Revenge stableford competition in Barry's honour followed by a barbeque.

**GREG SWAFFORD**  
BOARD MEMBER, NZGCSA

Most of the state has received minimal autumn rainfall so far this year which has prolonged the irrigation season considerably.

Golf Victoria recently conducted a meeting in conjunction with GMV, AGCSA and the VGCSA in regard to pesticide use in Victoria. The meeting was well attended and it was good to see most clubs were supported by their managers and club personnel.

What was highlighted in my opinion were two main points – the need for golf clubs to have good governance and for the golf course superintendent not to assume responsibility on behalf of the club or employer. The DPI is also working closely with the VGCSA and we hope to develop a relationship that will educate and promote safe work practices in this area.

Green Acres Golf Club was the venue for our first education meeting of the year, sponsored by Nuturf. We had about 85 people attend the day which is fantastic. **John Neylan** gave a summary of the meeting organised by Golf Victoria the week prior which generated much discussion from the floor. **John Geary** then gave an insight to the new



St. Andrews Private venture. Host superintendent **Mat Poultney** had the course in great condition which was inspected on the course walk. The new clubhouse and hospitality were first class.

As this edition was going to print, the AGM was due to be held at Kingston Heath Golf Club on Tuesday 7 May. Guest speaker was **Jason McCartney**, former AFL footballer and Bali bombing survivor. A full report on the new VGCSA committee, VGCSA Graduate of the Year and golf winners on the day will be published in the next edition of ATM.

Monday 3 and Tuesday 4 June will see the VGCSA's combined Country and 2IC meeting. This was well supported last year and will again be held on the Murray River, this time at Cobram Barooga. The hospitality up on the river is always welcoming and a suitable location for superintendents and assistants to get away and network for a couple of days. Golf is scheduled for the Monday afternoon and our meeting on the Tuesday morning will have a 'management' theme.

**STEVEN HEWITT**  
PRESIDENT, VGCSA

**Kingston Heath Golf Club hosted the recent VGCSA AGM**

## STA NSW

STA NSW is proud to be involved in supporting several TAFE awards during the year and we know the importance of educating our future leaders of the industry.

Recently we chose the NSW Sports Turf Graduate winner for 2012 and are delighted to congratulate **Andrew Spicer** who was nominated by Kurri Kurri TAFE and works at Wyong Shire Council. I would like to acknowledge the other applicants we interviewed and who presented very well – it was certainly a tough decision to make. Congratulations to **Kaysie Davies** (Campbelltown City Council/Yallah TAFE) and **Andrew Cassar** (Barker College/Ryde TAFE) and we wish them all the best for the future.

Andrew's focus will now be on the national title where he will compete against other state candidates at interviews in early June, with the winner being announced at the Australian Turfgrass Conference on the Sunshine Coast. Andrew is very excited about representing NSW and the opportunities this award brings.

Andrew is a young man who demonstrates a lot of passion and pride in his work and we look forward to watching his career in the sports turf industry develop in the years to come. The next STA NSW event is the Wollongong seminar on Monday 26 August.

**CHRIS CHAPMAN**  
PRESIDENT, STA NSW

## SAGCSA

Flagstaff Hill Golf & Country Club (superintendent **Gary Day**) was the host of our March meeting, the first SAGCSA event for 2013. Unusually humid weather greeted the early starters for a quick nine holes, from where the group swelled to 28 for a course inspection during which Gary detailed some of the recent course changes undertaken as well as some future plans for development.

Considering the lack of irrigation water the club has had during what has been a very dry Adelaide summer, the course was in great condition. Following a machinery demonstration from Gold sponsor and new South Australian Jacobsen dealers Gilbert Motors, the day was rounded off with a BBQ lunch.

Our next event is an overnight trip up to the Riverland, visiting clubs including Renmark, Berri and Barmera, enjoying

a mix of golf and course tours along the way. We would encourage members to come along and support our country members on what should be an enjoyable trip.

Congratulations are extended to **Matthew Gates** (West Lakes Golf Club) who was selected as the SAGCSA Graduate of the Year during recent judging. Matthew, who will go on to represent the state in the AGCSA Graduate of the Year, nudged out **Chris Clark** from Kooyonga Golf Club in what was a close decision. Both candidates acquitted themselves very well during judging and both clubs are to be congratulated for the quality of their trainees this year.

**BARRY BRYANT**  
PRESIDENT, SAGCSA



**Right: The new Champion  
ultradwarf couchgrass green (13th  
hole) at Brisbane Golf Club**

**M**y apologies for always seeming to harp on about the weather and in particular the rain, but it is hard not to when it is such a dominant variable in the life of a course superintendent. We all know that the weather rules our lives in our day-to-day operations but it is now becoming such a factor that it may ruin our lives.

Indeed in some unfortunate cases it has already started with the effect of the excessive rainfall over the past couple of years seeming to be coming to the fore with numerous clubs in financial difficulty. Virtually no golf course operation is immune from budget cuts, and savage ones at that.

I know of two southeast Queensland golf courses under administration and several others teetering on the brink. Many positions have been made redundant across the golfing industry as clubs try and reel back expenses.

It's funny how the golfers' expectations of playing conditions haven't diminished though despite the shocking weather. Oh, and on my patch of dirt, we have received 1.3 metres of rain in the 90 days since Australia Day.

Things have been fairly quiet on the association front but our meeting at Brisbane Golf Club in March was a well attended and thought-provoking day with 50-odd attendees. The AGCSA's HR & Best Practice manager **Daryl Sellar** delivered an excellent presentation covering management issues



and broached a broad array of topics including agronomics, HR management and 'managing up', IT/computer skills, budgeting, pay and planning.

As expected Daryl's presentation hit the spot. The great advantage with Daryl is that he has sat in the superintendent's chair and knows what we have to tolerate to get our job done.

In his role with the AGCSA he has unfortunately seen many cases where a breakdown has occurred in the relationship between a club and their superintendent and gave some great ideas to help avoid having to ring him in this situation. His take home message of 'management issues = opportunities' is a phrase that the audience no doubt embraced.

In recognition of Turf Culture's generous donation to flood-affected Bundaberg Golf Club superintendent **Sean Stuchbery**, the GCSAQ invited managing director **Warren Braybon** to the meeting to enlighten us on a few of his products. While it was good to get updated, it was equally pleasing that Warren became an active contributor to the discussions on the day.

A typically warm (and dry) March day greeted us as we walked out on the course to have a look at one of host superintendent **Brett Morris'** new ultradwarf couch greens. Champion is the variety used at Brisbane and the surface was absolutely first class. Brett has instigated a replacement programme and is doing the work in-house for a very modest amount of money but with great results.

The 29th Australian Turfgrass Conference is just around the corner and we look forward to welcoming you all to the Sunshine State. Twin Waters resort will provide an excellent venue and host superintendent **Gary Topp** and his crew will have the Twin Waters golf course in its usual sparkling condition.

Just prior to the conference the GCSAQ will be holding a day with an environmental theme at Royal Queensland Golf Club where among other things we will be looking at host superintendent **Marcus Price's** new washdown bay recently installed by Country Club International. A game of golf is also on offer so book yourself in.

## STANZ

**C**onference season is upon us and as this edition goes to print we are gearing up for the NZ Turf Conference in Hamilton which will be held the week before the 29th Australian Turfgrass Conference. A number of New Zealanders will be making their way over to the Sunshine Coast to again enjoy the hospitality, networking and learning environment of the AGCSA show.

As we move toward the middle of winter, New Zealand turf managers can reflect on what has been a challenging hot dry summer and autumn across much of the country. The lack of rainfall in conjunction with intense periods of heat has put many of our turf areas under significant pressure leading into the winter sports season.

To overcome the challenges of Mother Nature we need to strategically think and adapt to the environment. This is fundamental to successfully maintaining turf. The golf course sector in New Zealand has trended towards the path

of a more environmentally sustainable turf management model and reduced the likes of fertiliser, chemical and water inputs. Winter sports surfaces, however, require fertility to achieve the desired turfgrass health to reduce winter wear from increased expectations and loading by our sports communities.

Factors such as grass species, climate, geographic location and ground profile are important to consider when making decisions regarding sportsground maintenance programmes. The decision making process should be discussed with suppliers and consultants working together to achieve the best possible outcome for the grounds. Good managers in any sector surround themselves with good people that relate well to them and their ground and ultimately work in a partnership to achieve the desired objectives. Good luck for the rest of winter.

**IAN MCKENDRY**  
CHAIRMAN, STANZ

**PETER LONERGAN**  
PRESIDENT, GCSAQ

**W**ith winter about to hit, let's hope we get some good rains to top up our dams as we have had a fairly dry autumn in the south.

At the end of the summer season the STA, Cricket Victoria and Country Victorian Cricket League ran a series of education sessions for curators around several parts of the state. These were well supported by local clubs and volunteer curators and provided advice on turf wicket preparation during the season and what can be done heading into the winter months. A big thank you to the STA committee, Cricket Victoria and **Les Burdett** for such topical information and, of course, Les for his fantastic anecdotes.

On a different note, I would like to thank **Sue Bailey** for all her work as the association's administration assistant for the past six years. The decision to part ways has come about as part of STA Victoria's strategic plan and we are now looking at employing an industry development officer to take things into the future. If you would like any further information regarding this role please don't hesitate to contact me.

As we move forward we are busy planning for our upcoming Cricket Wicket and Sportsfield Seminar on 17 July at AAMI Park to be held in conjunction with Cricket Victoria. Speakers on the day include

**Andrew Peart** (AGCSA), Sports Turf Consultants, and school and council representatives. Our guest speaker will be Melbourne Storm coach **Craig Bellamy**. For more information please visit our website.

**NATHAN TOVEY**  
PRESIDENT, STA VIC

## ON THE MOVE

**Glenn Beauclerc:** Appointed new course superintendent at Logan City Golf Club, QLD.



**Justin Bradbury:** From assistant superintendent Scarsdale Golf Club, NY, USA to superintendent Bonnie Doon Golf Club, NSW.

**Simon Grieve:** From Adelaide Shores, SA to assistant superintendent Glenelg Golf Club, SA.

**Richard Hooton:** Departed Kangaroo Valley Golf Club, NSW.



**Ben Lucas:** From assistant superintendent Tocumwal Golf Club, NSW to superintendent Young Golf Club, NSW



**Adam Leech:** Departed Gundagai District Services Club, NSW to go contracting.



**Richard Moore:** From assistant superintendent Bermagui Country Club, NSW to superintendent Riverside Golf Club, VIC.



**Brenton Morey:** Appointed new course superintendent at Wagga Wagga Country Club, NSW replacing Peter Lawson.



**Craig New:** Departed in April 2013 as superintendent at Lakelands Golf Club, WA after 19 years.



**Michael Waring:** From superintendent Royal Canberra Golf club, ACT to managing director of Complete Turf and Landscaping, ACT.

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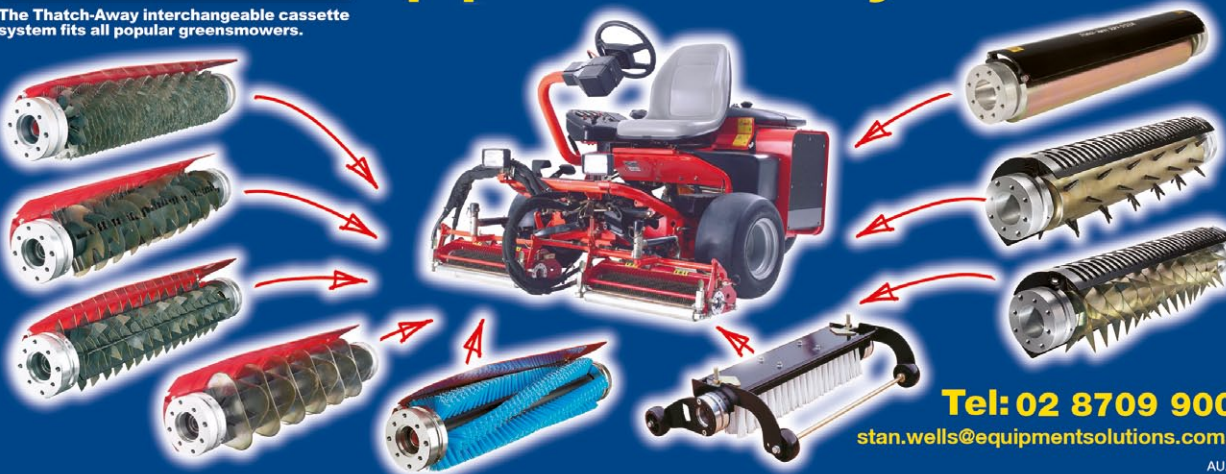
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Mark Jennings & Jim Waring with the Box Hill Golf Clubs Lowara Hydrovar pump set

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- Mark Jennings Superintendent Box Hill Golf Club

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