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MANAGEMENT

The Open Heads Back Home

2004

*Centenary
Australian Open*

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Three Tournaments
Tournament Preparations
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- *Around the Traps
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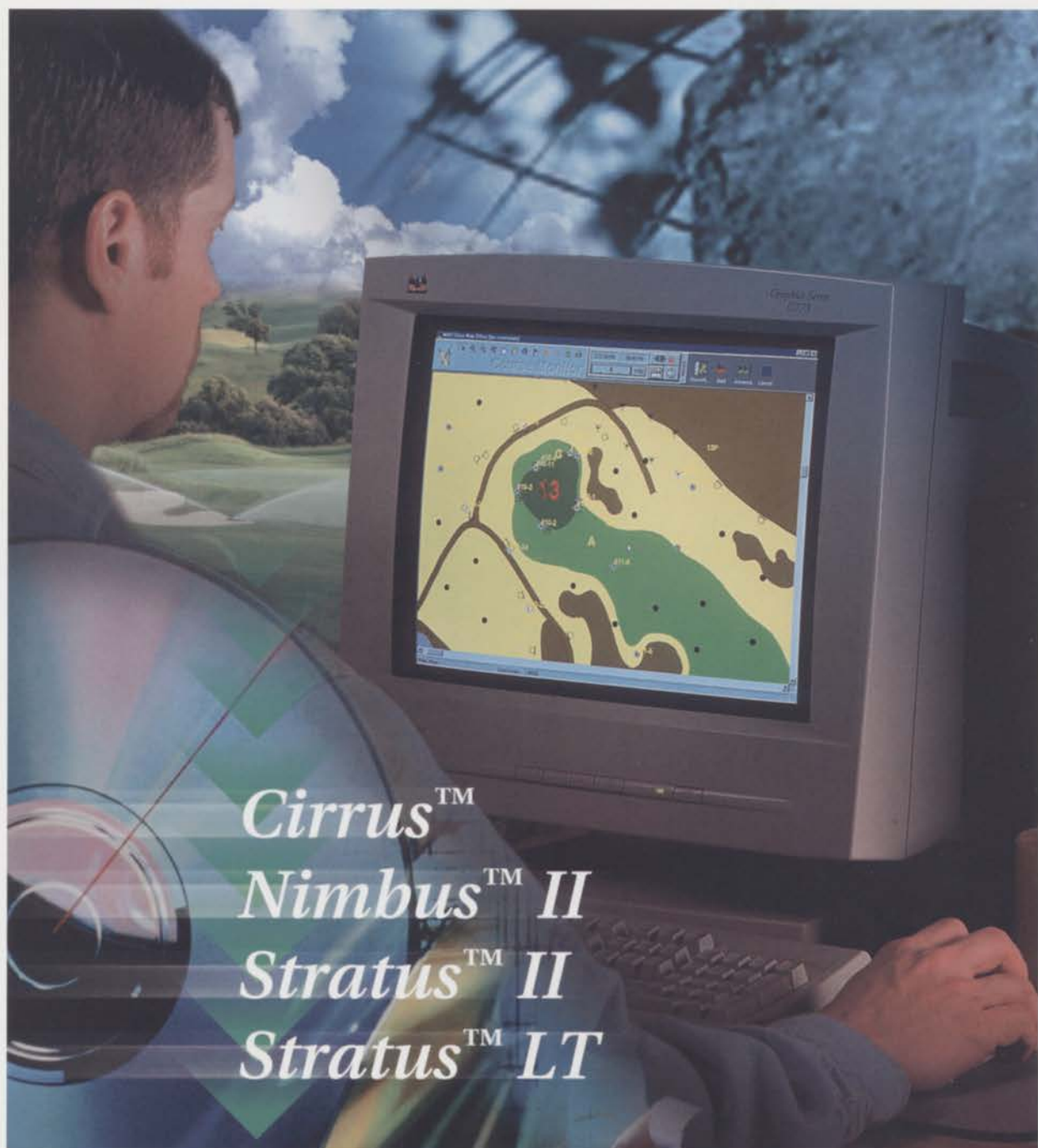
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The 18th and clubhouse at The Australian Golf Club in Sydney which plays host to the Centenary Australian Open from 25-28 November.

Photo: Brett Robinson

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The Australian Golf Club superintendent Robert Ashes will notch up his fourth Australian Open when the Centenary Open heads to his course in November. ATM catches up with Ashes to discuss the recent improvements made to the course which will get the ultimate workout when the likes of Allenby and Appleby drop by to do battle for the Stonehaven Cup.

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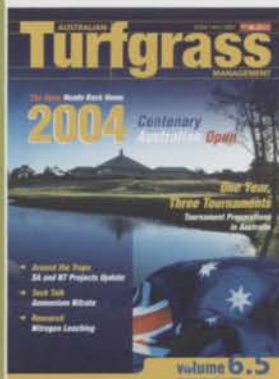
In 2003/2004, St Andrews greenkeeper Peter Stewart was fortunate enough to head Down Under to help prepare some of Australia's leading courses for major tournaments. Here he recalls his time in Australia and some of the highlights including Peter Lonard's rather different way of putting the Stonehaven Cup to good use.

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BRETT ROBINSON
EDITOR

A bit too close to home

Take a minute to reflect where the world is at these days. I'm sure many of you, like me, have watched in disbelief in recent months as hostage dramas and terrorist bombings again dominate the world headlines.

The bombing of the Australian Embassy in Jakarta, Indonesia, on 9 September, again hit home the very real threat to Australian interests abroad, and the graphic scenes shown by security camera footage were a grim reminder of the appalling lengths terrorists will go to make a statement.

It's easy to forget that among all the ex-pats working abroad is a close-knit community of superintendents who not only have to overcome some pretty extreme climatic conditions in their everyday line of work, but nowadays it seems, the increasing threat of something like a terrorist bombing.

Such is the professionalism and calibre of Australian superintendents, they have become highly sought after by many overseas clubs and golf course construction companies. A large number now find employment in South East Asia and the Middle East, both regions of the world which over the course of the past decade have witnessed a fair share of turmoil.

One of these superintendents is a fellow named Brad Burgess. Many in Queensland will know him as the former superintendent at The Glades Golf Club who in April left Australia to take up the superintendent posting at Jakarta's Cengkareng Golf Club.

On the day of the Jakarta bombing, which at the time of writing this had claimed nine lives and injured over 150, Brad had been at the Australian Embassy registering the birth of his newborn son Chadd James.

Brad had arrived at the embassy at 9.45am and after conducting his business left the premises at approximately 10.13am. He walked a minute up the road to his car, and left the parking lot at 10.15am (the exact time was printed on his parking ticket). The bomb was detonated outside the embassy 12 minutes later at 10.27am.

If you think that is bad, consider this: Brad had originally entered the consular section of the embassy only to be informed that he had to go back out the front to the visa section where the queue sometimes stretches out the door.

Fortunately for Brad he left when he did because he didn't have the complete set of documents required to fully register Chadd. If the documents had all been in place, Brad would more than likely have still been inside the embassy when the bomb was triggered, or worse still, walking back to his car. As it was, Brad was two kilometres down the road in his car when the blast rocked the embassy.

Having been in contact with Brad, I am glad to report that he, his wife Diratursina and both Chadd James and their two-year-old Brandon are safe and well. When I questioned Brad if the blast had raised doubts about working there, he had this to say:

"I enjoy working and living abroad, particularly in Asia. There are only a handful of people out there dumb enough to carry out cowardly acts like this. No matter where we live these days, they will affect us somehow or somewhere and we just need to prepare ourselves.

"After something like this it definitely makes you reassess what things are most important in your life and in today's world how easily all of that can be taken away from you."

I'm sure you will all join with me in wishing Brad and all other Aussie superintendents working abroad in high risk countries safe travels and can reassure them that they are never too far away from our thoughts.

On that rather sobering note, enjoy the magazine.

Brett Robinson

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Doug Agnew (VGA)

Rob Aiken (The Australian Golf Club)

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Ieff Gombin (Gold Coast Burleigh Golf Club)

Peter Harfield (Blackwood Golf Club)

Justin Haslam (TGA& ACT)

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Foreword Thinking

Welcome to the October-November edition of Australian Turfgrass Management magazine. With spring now upon us and summer just around the corner, I can only assume that every shed around Australia is running at full capacity.

The AGCSA has been working just as hard and I am pleased to announce that the Environmental Management Working Group has hit the ground running. Its draft golf environmental management policy has been released to all state and national golfing bodies for input and ultimately their endorsement.

The Australian Golf Environmental Management Policy is the golf industry's declaration of its environmental commitment. The policy provides general direction and sets out policy principles for environmental management within the industry.

It is a set of basic principles which guide the industry when defining objectives and targets for improving environmental performance, and is a key tool for informing the golfing and general public what the industry's environmental priorities are.

This is an important first step and I would like to thank the working group for its input and guidance in reaching this stage. I would also like to point out that this draft environmental management policy complies with ISO14001 which is extremely positive for our industry.

This policy will be released in the next two months and will be distributed through all of the stakeholder's communication channels.

I was fortunate to attend the 2004 Queensland Golf Industry Conference in early

August. This event brought together all of the peak golf bodies in Queensland to discuss current issues and consider the future of golf in the State.

This was an extremely beneficial initiative and I congratulate all who were involved. We will be keeping a close eye on the outcome of this initiative and will keep you up to date with any progress.

The session on golf and the environment was organised by the GCSAQ and was a revelation to most of those that were not superintendents. It highlighted yet again that superintendents are taking on the responsibilities for looking after the environment with little understanding from club members and administrators of what is involved.

What clubs have to come to grips with is that by law they will have to invest in the environment and not just increasing membership and encouraging junior golfers.

In August I was also able to accompany Australian Golf Union chief executive Colin Phillips, AGCSAtech manager John Neylan and superintendent Robert Ashes on a course inspection of The Australian which plays host to the Centenary Australian Open in November.

The course has come through winter superbly and with the spring growth spurt will require little effort in bringing up to top notch condition for the Open. Robert will be preparing the course for what will be his fourth Australian Open, and I have no doubt that the course's presentation will be a real credit to Rob and his expert team.

Once again the AGCSA will be looking for volunteers as part of the Course Quality Officials program. This is a great opportunity to be part of



AGCSA chief executive, Steven Potts

the Centenary Australian Open and is an excellent educational opportunity for assistants and aspiring superintendents to get an insight into major event preparation.

On a more light-hearted note, may I personally congratulate the inaugural winners of the 2004 AFL and NRL Nuturf footy tipping competitions. Kym Traeger from the Berri Golf Club in South Australia won the AFL competition, while Steve Harris from The Vintage Golf Club in New South Wales won the NRL. In doing so, both Kym and Steve have secured the ultimate in bragging rights, but the real question is whether they can back it up in 2005. The tipping competitions were enormously popular and for the rest of our unsuccessful tippers remember there is always next year.

Finally, the AGCSA is conducting a review of its operations and is seeking suggestions on how it can improve Australian Turfgrass Management magazine. To complete the survey, and be in the running for the prize, please follow the link on the AGCSA website. Enjoy the magazine. ■

Steven Potts,
Chief Executive Officer, AGCSA



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2004 Centenary Australian Open

The Open Heads Back Home



THE AUSTRALIAN
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Having hosted the first Australian Open in 1904, the Centenary Australian Open returns to The Australian in November



The Australian superintendent Robert Ashes

The 2004 Centenary Australian Open will be played out at The Australian Golf Club in Sydney, home to superintendent Robert Ashes for the past 22 years. ATM editor Brett Robinson heads north of the border in the lead up to what will be Ashes' fourth Open and discovers that this year's event will be akin to a great unveiling for Australia's oldest club.

Robert Ashes likes to think of this year's Centenary Australian Open as an unveiling rather than a test. Over the past five years the long-time superintendent at The Australian Golf Club has instituted a raft of changes to the country's oldest club, which despite being given a thorough working over by the club's 1100 members, have yet to face the ultimate challenge in hosting the game's upper echelon.

Standing before the likes of Allenby and Appleby lays a new-look course boasting 18 new greens, six new championship tees to test the tactics and a bevy of remodelled bunkers designed to swallow the hopes of any aspiring Open champion.

Having been the venue of the very first Open in 1904, it is fitting The Australian should now play host to the Centenary Open, and if past history is any guide then over the four days

starting 25 November another unique chapter is set to be penned in the annals of the tournament's history.

Through the ages

While Peter Lonard secured last year's Open on the untried greens at Moonah Links, the 2004 Open heads back to one of Australia's grand old clubs, a venue which has hosted the Open 15 times and has witnessed some of the event's major milestones.

The first Open chapter was entered back in September 1904 - The Australian was then located at Botany - when the Honourable Michael Scott became the inaugural recipient of the Stonehaven Cup. The Victorian amateur triumphed with a four round score of 315.



The very first Australian Open champion, the Honourable Michael Scott. Picture: Royal Sydney Golf Club

After travelling to Royal Melbourne and Royal Sydney, the Open returned to The Australian in 1908 where Tasmanian amateur C. Pearce won with 311.

Following World War I, the Open headed back to The Australian in 1920 where New South Welshman Joe Kirkwood became the first Open champion to break 300 with a winning total of 290, 12 shots better than the previous record score of 302 set by Victorian amateur Ivo Whitton in 1913.

Incidentally, Kirkwood's record would stand for a further 14 years until Sydneysider Bill Bolger carded a 283 up the road at Royal Sydney (which at the time was home to a budding young curator named Rupert Walkerden) and in doing so beat Gene Sarazen by three shots.

Another New South Welshman Fred Popplewell won the 1925 Open before champion amateur Whitton created a unique slice of Open history by securing the 1931 title. Whitton, who in 1912 had become the Open's youngest champion (a record that remained until Aaron Baddeley won at Royal Sydney in 1999) became the first player to win the Open in three separate decades, securing his fifth title with the 1931 win.

Victorian G.W Naismith added his name to the Open honours board by winning the 1937 Open, E.J Cremin shot 287 to win the 1949 Open, while a decade later Kel Nagle, Australia's Centenary British Open champion, won what would be his only Australian Open.

After a break of 16 years, the Open teed up again at The Australian in 1975 and remained there for the next four years. It proved to be a

golden period with icon Jack Nicklaus establishing what would become a special relationship with the club.

With a score of 279, Nicklaus, who had won his first Open title in 1964 after shooting a 67 in a playoff against Bruce Devlin at The Lakes, won his fourth Open title in 1975 and backed that up the following year with his fifth victory.

In 1977, David Graham won his first and only Australian Open, before Nicklaus returned in 1978 to win the last of his six Open titles.

Four years later Bob Shearer won his first Open, the same year that a young man by the name of Robert Ashes joined the crew as assistant superintendent.

In 1990, American John Morse and Craig Parry fought out what was then only the fifth playoff in Open history. Both finished with 283 (Morse closed with a round of 69 and Parry a 72) before Morse secured the title at the first hole of a sudden-death playoff.

Finishing in a tie for third that year was Greg Norman who claimed the undoubted highlight of the four days when he scored a unique albatross on the par 5, 5th. Having crushed his drive left of centre, Norman proceeded to hole his 3-wood second shot, a distance of over 250m. A special bronze plaque now marks the exact spot where Norman hit that sweet shot.

The most recent Open at The Australian was in 1996 and was special for two main reasons.

The tournament marked the first appearance in Australia of a budding professional by the name of Eldrick Woods. Tiger, who had turned professional just three months earlier, came to The Australian as the next big thing in golf, boasting three US Amateur titles.

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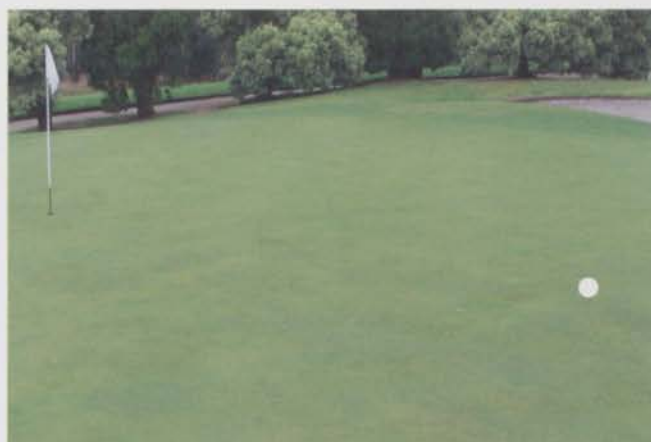
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Looking towards the 16th green at The Australian. The 16th has been lengthened by 43 metres with the construction of a new championship tee

The Australian sorted Woods out however. He scraped in under the cut after opening rounds of 79 and 72, before finishing with 71 and 70 to tie for fifth, 12 shots adrift of the winner.

And who was champion that year? Well, barring a sensational comeback, it was most likely the last time The Shark will ever lift the Stonehaven Cup. With rounds of 67, 73, 71 and 69, Norman compiled the biggest winning margin of his five Open victories, finishing eight shots ahead of Wayne Grady and making it two in a row after winning the previous year at Kingston Heath.

A seasoned pro

The 2004 tournament will be Ashes' fourth Australian Open, a milestone which comes just weeks after he celebrates his 49th birthday. Not bad for someone who three decades earlier chucked in an architecture degree at the University of New South Wales, took a fill-in job at a local golf course while deciding what career to take, and now finds himself at the top of the superintendent profession.

Ashes' first Open was in 1982, the same year he joined The Australian as assistant superintendent after spending six years at Avondale Golf Club.

He was just 18 months into the job when he was promoted to superintendent, a position the father of three is likely to hold on to for a while yet.

There have been plenty of Open memories for Ashes, thankfully for all the right reasons, and come November he is looking to add yet another successful tournament to an already long and distinguished career.

"The first Open was always a buzz, being involved in the big time," recalls Ashes. "As far as tournaments go they have all been good and we haven't suffered any controversy. In each case the course has come up well and the pros have played their game and shot the scores.

"It's definitely a thrill and an honour to be preparing the course for the Centenary Open. Ever since the club put its hand up to host it, I've been looking forward to it. But it's something you can't do on your own. I'm only a cog in the machine here. It's the staff, it's management and all those involved in putting the tournament together.

"I enjoy the pressure. I think with any tournament you're name is on the rack but to put it in perspective it's just another weekend. You've got to keep it in perspective but we are certainly striving to do the best possible job and show the world what we can do and give the club something to be proud of.

"The thing is that you don't want to make it too hard for yourself and try and achieve the impossible. You've got to budget for the worse case scenario and be prepared for the worse possible conditions. Everything else is a bonus.

"Experience does play a part and the more you do it the better you are. But at the end of the day you've got to be confident of the product and the people that are producing it. You've got to be confident that your turf is in good shape, and that doesn't happen by a fluke."

The great unveiling

In many ways this Open will be an unveiling of sorts for Ashes and The Australian.

Since the Open last visited Rosebery, Ashes has overseen some major improvements to the course, the most extensive set of works undertaken since the whole course was redesigned in the mid 1970s by the Nicklaus company and in cooperation with current patron Kerry Packer.

Following extensive trials of 10 different bentgrass varieties, the decision was made to convert all greens and the practice putter to the new superfine Penn-A1 creeping bentgrass. In doing so, it became one of the first Australian clubs along with Concord to make a full-scale conversion to the new variety.

The old Penncross/Poa greens were ripped up and resurfaced in 1999, while the immediate surrounds were regrassed with Santa ana and the landforms were tied in better to the greens. While there was no major reshaping of the greens, some gradients were softened to provide a greater choice for pin placements.



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Five years down the track and Ashes says he is delighted with the way the new greens are maturing despite the additional management challenges they have thrown his way.

"The Penn-A1 does require vigilance to maintain, but it delivers a great putting surface," says Ashes. "We are very happy with the choice. The greens are strong in summer and maintain very good density over winter. We still have issues with wintergrass, but we can keep them (the greens) clean."

Poa control, along with thatch management, has been one of the major challenges to test Ashes in the upkeep of the new greens.

"Wintergrass management is a big issue at the moment and will continue to be so," says Ashes.

"We are finding over the years, long years of managing wintergrass, we may have developed resistance where other clubs haven't, but we have to be creative in our solution finding. Not everything works as per the recipe or the advertised effectiveness of old and new products. We all desire a silver bullet, but realistically you have limited resources with commitment being your greatest asset.

"Wintergrass is always a problem and was one of the reasons why we replaced the greens

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Early morning mist creates an eerie scene looking across the 11th green at The Australian

initially, to introduce a stronger bentgrass more capable of resisting it. But that's not the only way to keep it out. There's a whole management regime that has to go with it.

"We are asking so much more of our greens nowadays than say 10-15 years ago. Everyone wants them at 11 feet every day of the week. The old grasses can't sustain that and the new grasses can sustain it for periods but they aren't bullet-proof.

"I think that expectations have forced the bar up extremely high and as turf managers it is difficult to maintain that week in, week out through the whole year. Members don't accept troughs and they even see renovations as an affront to their week rather than embrace it because it gives the turfgrass sustainability."

For Ashes, the most effective weapon in controlling *Poa* has been handweeding and when ATM visited The Australian in mid August Ashes had teams out scouring the greens daily.

Thatch management has also been an issue with the new greens and Ashes has developed a regular spiking and dusting program.

"We have moved away from high impact renovations and incorporated low impact renovations like dusting and spiking," says Ashes. "This means there is less surface disruption for *Poa* to get in and effective aeration and thatch control. The golfers tend to enjoy it more, even though it's more often."

Changing cultural practices is something not unfamiliar to Ashes who over the past 22 years at The Australian has had to move with the times.

"The way I have managed the course has changed mostly to reflect the progress of technology," he says.

"You sift the wheat from the chaff with all this new technology and try to get to the basics. I never deviate too far from the basics of greenkeeping – good fertility, good aeration and picking the right grass for the right spot. The fundamentals haven't changed.

"There are some great new products on the market but there aren't too many silver bullets. Good management of your surfaces is the key to it. You step aside from the basics at you peril.

"The thing that's probably helped me most over my career is the regular dusting of greens, clever aeration and different renovation machines and techniques. The next thing would be the new species of grasses. Mowers are still mowers, but dusting greens is out there for me. I've been using that for thatch control and firmer greens for a long time, and the new bents demand it."

A more sustainable product

At the same time as resurfacing the greens in 1999, Ashes and his staff, along with the Nicklaus designer and shaper, reformed all greenside bunkers. The quality of sand was improved, while access and maintenance capabilities were enhanced.

In 2002 it was decided to bring the fairway bunkers into line with the greenside bunkers. Again the works centred on making the bunkers more visible and more of a hazard off the tee and improving the consistency of the sand.

Ashes decided on using a crushed sandstone, which apart from boasting excellent colour (a brilliant white) had superb compacting qualities that resisted ball plugging and was intrinsically very manageable.

"I guess you can say we modernised the bunkers," says Ashes. "I think we have introduced consistency. They are in better shape and don't require as intense management. The banks are easier to maintain and we have cut down manual Flymo work quite drastically."

During 2002 the fairways - a mix of different couchgrasses - were overplanted (stolonised) with Santa ana. In two years Ashes says the Santa ana has done extremely well and is looking forward to the next few years when the full benefits will be realised.

Six new tee areas have also been constructed over the past six years, all of which will be utilised during the Open, while all the championship tees and a number of the member tees were resurfaced with Santa ana.

The new tees have added a total of 152m to the course's length with the 12th tee being the final major work before the tournament. Twenty-six metres has been added to the 2nd and 4th (both par 3s), the par 5 5th has been extended 25m, and the par 4 9th has an extra 17m. The par 4 12th is 15m longer while the par 4 16th plays 43m longer.

While work to the course itself has finished for the time being, Ashes says there are still plenty of future projects in the pipeline for The Australian.

Apart from the continued sustainability of the club's turf systems, Ashes says other issues

like water management and environmental management will be big topics for the club over the next five years. Landscaping and tree management will also be a focal point. Ashes also adds risk management to that list and in preparation for the Open has had the tree surgeons in removing dead branches.

While the improvements made over the past five years will ultimately add to the Open spectacle come November, Ashes says they were intended to deliver a better product for the club's members.

"Overall, I think we have a better product which in some respects is easier to manage," says Ashes. "It has given the members a more sustainable, high quality product. The pros? They will get the same - a consistent product."

Another chapter begins

So how will the pros negotiate the new-look course? Of most interest to Ashes is how they will handle the new championship tees.

The 1st, currently a par 5, will be turned into a challenging opening par 4, while the par 3 2nd is now 194m thanks to the new championship tee. Holes 3, 4, 5 and 7 have traditionally played a key role in the aspirations of many previous tournament champions and will do so again.

The closing four holes set up beautifully – the par 3 15th, par 4 16th, par 4 17th and par 5 18th. The 15th boasts a well guarded green while the new tee on 16 has added 43m to what was already the hardest hole on the course.

"I have absolutely no idea what they will shoot," laughs Ashes. "But The Australian has traditionally been a good test of golf."

"With the new tees we've added around 152m, which while not sounding like a lot, will make that extra difference and I will be really interested to see how the pros will handle them."

"Along with the new greens they will add a bit more spice and intrigue, but it really comes



Looking back down the 16th from behind the green



The 18th green is flanked by water to the right and massive bunkers to the left

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Rob Ashes and AGU chief executive Colin Phillips discuss tactics for the Australian Open

back to weather conditions. If there are some bad days they will have some problems.

"The Australian demands accuracy around the greens and recovery shots can be very difficult. The fairways are generous and off the tee it's a good fun course, but it's the next shot that counts. The bunkers are deep and if they have a short pin the course can come up and bite you real quick."

With plenty of talk these days surrounding the effects technology is having on the game, Ashes is unconcerned about the prospect of the pros carving up his grand old lady.

"I think a lot of it is linked to weather conditions," he says. "There's no reason with the calibre of these players why they can't belt the hell out of The Australian, but if it blows they probably won't."

"Conditions at that time of year can be varied. I'd like to see it dry and windy – a couple of nor-easters with a southerly thrown in, and one still day."

With only weeks remaining until the biggest tournament in Australia, Ashes is confident with the state of the course, a feeling backed up by AGCSATech manager John Neylan and Australian Golf Union chief executive Colin Phillips who

have conducted a number of course inspections in the lead-up to the tournament.

With the course put to bed over winter in top condition, all that remains for Ashes, his assistant David Honeysett and complement of 21 staff to do is tune the surfaces to tournament conditions.

"I'm feeling very happy where we are at," says Ashes. "The course has come through winter very well. Winter was cold and dry and we had a lot of frosts which hit a few fairways."

"We've got issues such as wintergrass but that won't affect the tournament one iota. Obviously it affects our local play and that's really the only negative at this stage."

"The biggest thing for tournament preparations is that, touch wood, it's up to us not to do anything stupid and make sure we are careful with everything we do because the closer you get to the event the less margin for error you have."

"We'll just keep an eye on the greens and tune those surfaces to the desired speeds. Everything else should follow."

"There's definitely no need to trick up the greens. I will be presenting the playing surfaces in their best condition, no tricks! Besides, we've

got clear guidelines from the AGU and we intend to meet those."

"The older courses, as we are classified, are at the mercy of the distance the golfer hits the ball and as turf managers can only present the course in as good a condition as resources and weather allows, we should resist calls to trick the course up to reduce scoring."

"People are attracted by good shot making and seeing players rewarded for good play. The course should take a backseat role and I'm confident it will stand up to them."

"If they shot great scores it won't be because the course is in bad nick; in fact it's a compliment if they are sinking the putts and the ball is rolling true because you have done your job." ❏



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One Year, Five Courses and Three Tournaments

Preparing For Tournaments Down Under



The second green on the Legends Course at Moonah Links. The Legends Course was opened just weeks prior to the 2003 Australian Open
Picture: Moonah Links

In previous editions of ATM we have highlighted the adventures of Australians packing their kitbags and heading overseas to further their turf management careers. Here Peter Stewart, greenkeeper at St. Andrews in Scotland, provides an account of his trip Down Under during 2003/2004 where he helped prepare some of Australia's finest courses for the rigours of tournament play.

As a young greenkeeper I had been pretty fortunate. Having just turned 22, I had already worked the 2000 British Open plus three European Tour events at St Andrews, the home of golf.

Yet I felt I needed something new to further motivate me in my chosen career. What better than the opportunity to gain more tournament experience by spending a year in Australia working on some of its finest golf courses and preparing them for top international events.

In March 2000 an Australian greenkeeper by the name of David Goldie came to St Andrews to assist us with preparations for the 2000 Open. David spoke passionately of prestigious courses such as Royal Melbourne, Kingston Heath and Metropolitan, and I found myself intrigued.

David's professionalism and interest in turf management left me extremely impressed by Australian greenkeepers.

After the Open, David was appointed assistant superintendent at 13th Beach and

shortly after I was given the opportunity to head out to Australia to work there.

Under the working holiday visa regulations for Australia I knew I was only able to stay at 13th Beach for three months so I started looking into other courses for work before and during the tournaments they were hosting.

I sent my resume to Royal Melbourne and I felt extremely fortunate when superintendent Jim Porter contacted me to say he had a position for me during the Heineken Classic.

13TH BEACH, BARWON HEADS, VICTORIA - April 2003

Arriving with my fiancée Kelly in late March 2003, I was to be based first at 13th Beach with David and superintendent Steve Hewitt.

The sight of 13th Beach was nothing short of awesome. This Tony Cashmore classic links had only been open two years but looked as if it had stood as long as the Old Course at St Andrews. I couldn't believe the links appeal of the course; it looked and played fast and firm with holes winding through the sand dunes with the sea crashing in the background.

13th Beach is situated on a sandy soil site. There is a variety of grass species on the course including Penn-G2 bentgrass greens, a mix of creeping red and Chewings fescue on the tees, collars, surrounds and fairways, with Plateau couchgrass as a base on the tees and common couch as a base on the fairways.

While there I was involved in all aspects of maintenance of the Beach Course. I found the day-to-day running of the course very interesting, as jobs such a fertilising and spraying were a regular occurrence. At St Andrews fertiliser and chemicals are applied very rarely.



Groundstaff at St. Andrews tend to the 18th. Peter Stewart is based at St. Andrews and has helped prepare the course for a number of major tournaments

The different turf cultures between Scotland and Australia require very different management. I found this very interesting and was always keen to do these jobs when I had the chance.

Something else I found very interesting was the use of effluent water. With drought issues

restricting the use of potable water it is another pressure the Australian superintendent faces in day-to-day course management. Fortunately in Scotland it is an issue we don't have to face.

The advantages of using effluent was that Steve could irrigate the course in times of

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One Year, Five Courses and Three Tournaments Preparing For Tournaments Down Under

severe drought when the use of potable water was restricted. The down side is that the water quality is quite poor with salinity ranging from 900-1200ppm with high sodium and chloride content. Fortunately with the course having a sandy profile, during the winter rains most of the salt accumulation is flushed out before it can cause any problems.

I was also involved in the construction of the new Creek Course. This was a joint design venture between Cashmore and Nick Faldo. I had been involved in many construction projects at St. Andrews (tees, bunkers and a new green), but never the construction of a course. It was an opportunity I enjoyed immensely, experiencing the likes of hydro seeding and sprigging and also the use of the laser level to build tees.

After leaving 13th Beach I attended the 19th Australian Turfgrass Conference in Adelaide where I was able to set up work at The Grand Golf Club and Moonah Links for the 2003 Australian Open.

The conference was fantastic and helped to further enhance my knowledge of Australian golf course turf management. Everyone was extremely friendly and very interested in chatting about St Andrews and other British courses.

THE GRAND GOLF CLUB, NERANG, QUEENSLAND - July 2003

The Grand was a fantastic course and only two years previously hosted the Australian Open won by Stuart Appleby. This Greg Norman designed course was highly manicured and the fairways weaved through gum trees that were hundreds of years old.

In fine turf terms I was as far away from St. Andrews as I had ever been but loved every minute learning turf management practices the Queensland way. I was involved with the winter work program which included sodding and construction. They also installed a new irrigation system.

Although the course was in dormancy, superintendent Rod Cook and his team gave me a fantastic insight into turf management and I would have loved to have been there in the height of the growing season.

MOONAH LINKS, MORNINGTON PENINSULA, VICTORIA

2003 Australian Open, December 2003

I started at Moonah Links on September 1. I was shown the Open and Legends courses by superintendent Leigh Yanner. At that time the Open Course was fully established and the Legends course was still in the grow-in phase.

Leigh was only in his early 30s and I couldn't believe how calm and composed he was when there was so much construction going on. The Open was only two months away and the clubhouse and all surrounding areas were still a long way from completion.

At first sight I was very impressed with the Open Course and I knew from the start that I was going to love working there. Moonah Links would not have looked out of place on the Open rota in the UK such was its amazing links appeal.

Leigh had just returned from a two-week trip to the UK during which he had been to watch the 2003 Open at Royal St Georges, had played the Old Course at my native St Andrews and met up with Links superintendent Gordon Moir.

He explained to me that he wanted to present the course in a true links fashion for the tournament and the chance to visit such courses

and chat with the superintendents was invaluable to his tournament preparation.

Moonah Links had a staff of 22 plus six international staff in the run up to the Open.

There were two guys from Ireland, one from England, one from New Zealand and one from Denmark as well as AGCSA Graduate of the Year James Dalton who was over from 13th Beach for six weeks to help out.

There was also another Scotsman, Graham Winter from Kingsbarns.

Leigh had two assistants, Scott Calder (Open Course) and Nathan Bennett (Legends Course)



Peter Stewart (back row, second from left) with the other internationals working at the 2003 Australian Open at Moonah Links



The Moonah Links crew with 2003 Australian Open winner Peter Lonard

One Year, Five Courses and Three Tournaments Preparing For Tournaments Down Under

and together they had an extremely difficult job, not only preparing the Open course but getting the Legends open before deadline.

The team at Moonah was excellent and we worked extremely hard to get the Legends Course and all the surrounding clubhouse areas ready before we could really turn our attention to the Open Course.

Six weeks out from the Open we started to increase the mowing frequency. Everything was cut daily with the fairways mown in one direction. This was done so as to let the natural undulations be the main feature of the fairways, a method we also use at St Andrews for the British Open and Dunhill Cup.

We also started to hand mow the greens every day; we used brushes on the mowers as and when it was required. The brushes were used to take the grain out of the greens and also to give as much contact between plant and ball. This is a practise we do not use at St Andrews but was extremely effective in producing a true roll. Greens were dusted lightly on a fortnightly basis then brushed and then cut with the brushes down.

One month out, news came through that the Open was to be put back three weeks due to

Channel 7's clash of commitments with the Davis Cup.

This was a blow for us internationals as four of us were due to finish up at the end of November after the tournament as that was as long as our visas allowed us.

The only option was for Leigh to get in touch with the Department of Immigration and see if he could put in a special request to keep us there until after the tournament in December. After a short wait we were granted our wish.

Leigh had been Richard Forsyth's assistant at Metropolitan Golf Club before taking on the role as Moonah superintendent. He had been involved in the World Matchplay there as well as an Australian Open so he was no stranger to the rigours of a big tournament occasion.

As this was his first time in charge of a large-scale tournament he wanted to get it just right. After the unfortunate circumstances surrounding the 2002 Australian Open and the choice of venue being one hour away from Melbourne on a course that had never hosted a major tournament before, the pressure was on.

So the whole team gave it 100 per cent up to and during the tournament. We worked

tirelessly without any time off because everyone wanted to get the course just right, a result I personally feel we achieved.

For the tournament we arrived at 4am. I cut greens 1, 16 and 17 and everything else was cut every day in the morning and afternoon except the greens which only required one cut a day to get them running at 10.5 feet!

The course presented as well as any I have seen for a tournament. The only downside if any was the fact we had a bit more rain than we wanted in the run up and so the fairways were darker in colour than we would have hoped for.

The course was received extremely well by all the players and spectators. Even Open winner Peter Leonard was so impressed by the presentation of the course that he twisted our arms into drinking bourbon and coke out of the Stonehaven Cup with him the night after the tournament finished!

The memory of Moonah Links and the Australian Open is one that I will hold on to for the rest of my life. It was a fantastic experience and one I loved every moment of. I learnt so much from Leigh, Scott and Nathan and all the team in my four months there.



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Peter Stewart was lucky enough to work under Jim Porter at Royal Melbourne during the Heineken Classic

ROYAL MELBOURNE, BLACK ROCK, VICTORIA

Heineken Classic, February 2004

After Christmas spent with family in Adelaide, I returned to Melbourne with the exciting prospect of working at Royal Melbourne for the Heineken Classic.

Royal Melbourne is without a doubt the pinnacle of Australian golf courses! As well as being Australia's most famous golf course it is held in extremely high regard throughout the world.

Royal Melbourne superintendent Jim Porter has been there for 15 years and been involved in preparing the course for no less than 13 tournaments. The fact that he knew his course inside-out became apparent from the first time I met and spoke with him back in March.

He reminded me very much of Old Course superintendent Eddie Adams in the way he knew his course and exactly what was required to get it to peak condition just at the right time.

Royal Melbourne had a certain mystique about it, very much like that of St Andrews. It goes without saying it's a very special course and was already in fantastic condition when I arrived. The staff were very much in tournament mode as we were only six weeks out.

Mowing frequency was already very intense when I arrived. The whole course was being cut every day and the use of wire brushes on the greens mowers was becoming more prevalent.

Staff were issued with their jobs for the tournament not long after I started. I was going to be hand cutting in the morning and then rolling greens, which I was really looking forward to.

Jim had a target speed of between 11.5-12 feet so readings were taken on a regular basis during the weeks before and maintenance adjusted accordingly. Greens were dusted on a regular basis also in the month before the tournament.

Fertilising was done on a fortnightly basis from about eight weeks out. Rates were determined by growth, but mostly it was low rates of nitrogen but high potash.

Each full-time staff member was assigned their own holes, usually two or three, which they took care of daily after their morning jobs. They looked after bunker maintenance, monitoring of greens (hand watering where required) and general hole maintenance. I really liked this idea as all staff took a real pride in their holes and there was plenty of friendly rivalry.

The Suttons mix bentgrass greens at Royal Melbourne are the truest and most uniform greens I have ever seen.

The tournament itself went off without a hitch. Members of staff knew exactly what was required of them during the tournament.

Greens were double cut each day and rolled to get the required speed from them. Some greens with severe slopes were monitored and only cut and rolled once. This required some precision to make sure they ran at exactly the same speed. This further displayed Jim Porter's knowledge and understanding of his course.

One of the highlights of the tournament was after finishing rolling the 17th green on Friday morning I was approached by Greg Norman. We had a five minute chat about the course and St Andrews. He had a very good knowledge of turf management and it was great to talk to an Australian golfing legend.

After finishing at Royal Melbourne I was lucky enough to go to Mark Parker's Concord Golf Club in Sydney to help out for the Women's Australian Open. It was a great way to top off my Australian experience and also get another tournament under my belt.

The green, green grass of home

One year, five courses and three tournaments passed by in a flash, but my memories and love for Australia will certainly never fade.

At the time of writing this I am back at St Andrews and working on the Old Course which has a new head greenkeeper in Euan Grant after Eddie Adams departed after 19 years to work as a consultant on the European Tour.

Since my return we have hosted the British Amateur and are preparing for the Dunhill Cup. As soon as that ends we will be busy preparing the Old Course for the 2005 British Open.

My time in Australia was one big learning curve, which is what I feel the profession of turf management is all about. I found Australian turf managers to be extremely hard working, professional and knowledgeable.

Their passion was very similar to that of our own in the UK. We all strive to create the same finished product - the best turf possible. It's just that the methods we use to achieve this are slightly different.

Although there was one thing that will always remain better in Australia - the weather! ☀



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A Spotlight on South Australia and Northern Territory Golf Course Projects



The new 6th at Glenelg with the clubhouse in the background *Caroline Fisher Photography*

GLENELG GOLF CLUB

Project: Course reconstruction

Location: Adelaide

Superintendent: Daryl Sellar

Time period: 1998-2004

Cost: \$1.3m

Comments:

The Glenelg Golf Club has been located on its current site at Novar Gardens in Adelaide's western suburbs since 1927. The course has undergone numerous changes over its history, with this project seeing the third major routing of the course.

The previous layout was developed by Melbourne architect Vern Morcom when the original layout required significant modification due to the compulsory acquisition of portions of the club's land for the adjacent Adelaide Airport in the late 1940s and early 1950s.

Golf Strategies' principal architect Neil Crafter and local tournament promoter and Glenelg member Bob Tuohy were selected by the club to guide the latest redevelopment. The redevelopment was prompted by four major issues:

- Turf species – the conversion of kikuyu fairways and surrounds to Santa ana, and *Poa annua* greens to bentgrass (Dominant blend);
- Revegetation – the aim being to return sections of the course to their original character through the Remnant Indigenous Vegetation Action Plan (RIVAP);

- Playability – through the development of a more challenging and interesting course, coupled with the conversion to more suitable turf species, the overall presentation and playability of the course was to be enhanced;
- Sustainability – early in the redevelopment program, opportunities were identified and strategies instigated that allowed the 'new' course to be more sustainable than the old, while still achieving the goal of improved quality and playability.

The project was staged and completed over a seven-year time frame, with work being carried out during the cooler months, with the exception of the first stage in 1998/99 which required a summer grow-in of stolonised Santa ana fairways.

This mid-year timing minimised the stress on turf (and staff) particularly during the first few years when the *Poa annua* greens were still trying to be maintained through the heat of an Adelaide summer, and disruptions to the irrigation system were inevitable.

Project stages

The first stage of work was carried out in the summer of 1998/99, when the predominantly kikuyu fairways of holes 4, 5, and 6 were stripped and replaced with Santa ana.

At the same time, the opportunity was taken to remodel the bunkering, extend the 4th green, construct a new 5th green and

reconfigure the 6th hole to play as a long par 4 to the old 7th green.

The 13th was realigned with a completely new green complex to utilise previously unused land, and a new par 3 14th hole (to the old 14th green) was created to cover the loss of the old 7th. Two large lakes were also excavated in an existing low area between the new 13th/14th holes and the adjacent 18th.

The 14th green and its surrounds were then rebuilt in the summer of 1999/2000, along with the creation of a new tee complex for the 15th and a lowering of the first part of the 18th fairway to improve visibility to this semi-blind landing area.

The timing of this work was to allow for the sprigging of fairways during the growing season, however, the existing *Poa* greens were retained and on some even relaid on the affected holes.

As one can imagine, this scale of work and all the associated stress that construction work brings, plus managing 16 existing *Poa* greens and relaying the modified ones through the height of summer was enough to break most people. The exception to this was the 13th and 14th greens which were seeded.

However, such was the skill of the previous superintendent Darrell Cahill, the work was completed successfully and commenced the transformation of the course.

This stage saw the revision of the timing of work, with the consensus being it was best if



The 11th at the reconstructed Glenelg Golf Club *Caroline Fisher Photography*

the work was carried out during winter. It was also decided that any areas requiring the introduction of Santa ana would be sodded rather than sprigged. This revision meant that it was not until the spring of 2000 that any further work was carried out.

In the meantime, the summer of 1999/2000 was particularly devastating on the old *Poa* greens. Many were in excess of 20 years old, and combined with the Adelaide climate and the accumulation of salts from the marginal quality bore and effluent water, the heat of summer proved too much for a number of them.

This led to a further revision of the course redevelopment program, and it was decided to replace the *Poa* greens with bentgrass. Cahill selected the Dominant blend (1019/1020), which has now been established throughout the course with all greens (except 13) being sown.

The works program for the redevelopment period was prioritised originally on the basis of turf quality needs (ie: removing the most troublesome greens, and heavily kikuyu infested areas first), as well as the scope of work involved.

This typically saw two major reconstructions (eg. complete new green complex, bunkering, turfing of fairway, irrigation etc) and two simpler surface replacements each year.

Irrigation system upgrades were to be carried out throughout the reconstructed areas, integrating with the old system and mindful of future upgrades. This work was done in-house.

Sand for the construction was sourced on site, with the native dune sand proving an excellent profile to manage for greens and also proven over the years to be a very good bunker sand.

However, with this sand in scarce supply, mining had to be very creative. This saw no

cartage of strippings of old turf off site, but rather the excavation of nearby sand deposits and the filling of mine sites with strippings which were subsequently capped with sand.

The details of each year's construction work are too complex for this article, but one continuous challenge throughout the redevelopment was to improve the drainage of the playing corridors.

Although classified as one of Adelaide's sandbelt courses, the proximity of the saline water table (within 1m of the surface in areas) meant that many areas had to be raised, or the water table regulated, to assist turf quality and playability.

The winter of 2004 has seen the start of the final stage of the redevelopment. Works include new greens and approaches to the 12th and 15th holes and new tees to the par 4 13th and 17th.

The most comprehensive work has been the construction of an entirely new par 3 hole, the 16th, which has been reversed in direction from the current hole.

The existing creek has been expanded into a lake network that provides a tranquil setting for this dramatic new hole. This final phase of the course remodelling will add some 110 metres to the length of the course.

Bunkers

Crafter and Tuohy developed a sod-stacked bunkering style to enhance the links character of Glenelg. Bunkers range from small 'one man' pot bunkers to larger, sprawling bunkers with capes and bays.

While more labour intensive to construct and maintain, methodologies have been developed and refined to produce the most effective 'look' for these unique bunkers.

The use of growth regulators has been explored, different edging techniques utilised, and grass types and sod thickness have been

revised, all leading to improvements in maintenance efficiency, although further trialling is still to be done.

Trees and bushes

One of the goals of the redevelopment was to create a more open feel to the course, while still retaining a distinctive treed character.

This was achieved by the removal of many tea-tree and other bushes that were 'lost ball' hazards that only succeeded in slowing down play and blocking vistas. Their removal and replacement with indigenous ground plane flora has opened up previously unknown view corridors and added significantly to a sense of spaciousness.

Some trees, predominantly non-native pines, were removed to facilitate the redevelopment. Many more trees have been replanted, including some non-native pines in areas to strengthen existing stands, while indigenous trees such as native pines have proven that they love to grow in Glenelg's sandy soils.

Results

There is no doubt that the redevelopment has seen a stunning transformation of the course and is a credit to the architects' and the club's joint vision. When the final stage of the redevelopment reopens for play this November, it will measure a demanding 6267m, par 71. From a challenge point of view, the objective has certainly been achieved.

More importantly, the course is now better equipped to meet the challenges of the future through greater sustainability. The character of the course now lends itself to reduced inputs in marginal or out-of-play areas, with greater focus on the playing surfaces.

The upgrade of the irrigation system and conversion of turf species has already seen improved playing conditions with reduced inputs.

The future

There is still a great deal to be done throughout the course, with upgrading remaining sections of irrigation, revisiting some revegetated areas, refining some design issues, upgrading the driving range, and completing investigations into Aquifer Storage and Redraw (ASR) schemes just some of the areas to be covered.

The strategy for these projects will become clearer once a review of the course redevelopment is conducted later this year. There is little doubt though that a strong foundation for Glenelg's future has been laid. ■

Shifting Sands – A Spotlight on South Australian and Northern Territory Golf Course Projects

THE GRANGE GOLF CLUB

Project: East Course redevelopment

Location: Adelaide

Course manager: Chris Klei

Comments:

The Grange course manager Chris Klei reports that the East Course is being redeveloped by the club under the guidelines of Mike Clayton and Associates. The redevelopment consists mainly of bunker/tee upgrades and relocation. The forecast is that some greens will also be assessed for relocation in the future.

In conjunction with the redevelopment, the club's vegetation coordinator Derek Carter has developed and implemented a plan for the removal of unwanted indigenous species. The object is to create a natural open feel to the East Course to highlight the indigenous species. The club is lucky in that it has some of the last remaining pockets of indigenous species in the Adelaide Plains which are now heritage listed.

This concept will give the two courses their own distinct feel with the East Course open and natural and the West Course having a woodlands feel.

Another project the club is combining with the East Course redevelopment is a wetlands aquifer storage and recovery scheme. This will not only help guarantee a water source for the future but also enhance the visual aspect of the course. It is hoped this project will start in early 2005.

Also, around these major projects, a new irrigation system will be installed. Paul Jones is the designer and installation consultant. ▲

GAWLER GOLF CLUB

Project: Course redevelopment

Location: Sandy Creek

Comments:

An ambitious upgrading as part of a 400 lot residential development is being pursued by the club and a local developer, in conjunction with a number of neighbouring landholders.

Nine holes of the existing course are proposed to be retained, with nine new holes built to accommodate the planned residential allotments. Land surrounding the existing course will be incorporated into the development.

A large vegetated area comprising a remnant stand of native pines is planned to be protected as a conservation area.

The land will require rezoning, a process expected to take around 12-18 months. Redevelopment of the course is planned in a staged manner, concurrent with the proposed stages of residential development.

It is proposed to retain 18 holes in play for golfers at all times. South Australian firm Golf Strategies will undertake the course redesign. ▲



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THE SOUTH AUSTRALIAN GOLF CLUB

Project: Construction of an 18-hole course

Location: Adelaide

Time Period: Construction start mid-2005

Comments:

This project, which will see the construction of an 18-hole members' course on the southern side of Adelaide International Airport, has been a long time in the making and was first conceived in the early 1990s.

For a range of reasons the project was unable to proceed previously, however,

developer SAGC Pty Ltd has now achieved all the necessary approvals and has entered into a lease with the operators of the airport, Adelaide Airport Limited.

The course has been planned by Adelaide's Golf Strategies as a challenging links course with a par of 72 and 6380m in length. Extensive earthworks will be employed to create a series of dunes through which many of the holes will play, while the Keswick and Brownhill Creek which runs diagonally through the course will be reshaped and landscaped to form a strategic hazard to a number of the holes.

The holes are named in the British manner with some featuring the use of dry stone walls which will be built to enhance the feel and play of the course. A number of holes will have similar strategic elements to some of the great British holes such as the Redan from North Berwick, the Cardinal from Prestwick and the Eden from St Andrews Old.

Detailed planning for the course is expected to commence later this year, with construction scheduled for mid 2005. ♣

THE VINES GOLF CLUB OF REYNELLA

Projects: Various

Location: Adelaide

Superintendent: Rob Millington

Comments:

Superintendent Rob Millington has been a busy man in recent times. The main focus of the club over the past eight years and continuing into the future is to improve turf quality with reduced water resources.

To achieve this all par four and five fairways have been planted with Santa ana, with one par 3 remaining to be done. All greens have been converted from a high *Poa annua* percentage/bentgrass mix, to bentgrass.

The green on the par 3 10th is to be resurfaced due to large patches of couch, while the 10th fairway and surrounds will be stolonised with Santa ana.

One of the major projects in the pipeline is the establishment of a 3000m² Santa ana turf nursery to enable the sodding of greens surrounds and any remaining tees.

The existing practice facility will be reconstructed to make way for the nursery.

The work will include relocation of the chipping green, reconstruction of the drain/spillway from the adjacent dam that currently leaks and makes the practice fairway unplayable during winter, drainage on the fairway, irrigation installation and planting.

Millington has also budgeted around

\$300,000 for a new 50 megalitre dam. Water currently available to the club includes 59 megalitres of winter stormwater held in four dams, 30 megalitres of bore water (reliant on aquifer recharge) and 30 megalitres of mains budgeted each year. With an approximate loss to evaporation from the dams of 15 megalitres, this leaves 104 megalitres available for 20.5ha of irrigated area.

The new dam project will involve bulk earthworks (35000m³); clay lining (6000m³); associated pipe work; upgrading storm water mining from 20litres/second to 75l/s; and installing a chain mesh fence around the perimeter. ♣

DARWIN GOLF CLUB

Projects: Various

Location: Darwin

Superintendent: Shane Bisseker

Comments:

The Darwin Golf Club is Australia's northernmost 18-hole golf course designed by Thomson and Perrett. With nearly 1000 members, the club in the past three years has gone from strength to strength. However, this was not always the case and in 2000 the club was struggling to repay debt while membership numbers declined.

Together with the general manager and executive committee, superintendent Shane Bisseker, who joined the club in May 2001 from the Empire Hotel and Country Club in Brunei, began thinking outside the square on how to make money to reduce debt and replace machinery.

On his arrival, Bisseker went about the task of tackling the course problems. In consultation with the committee he developed a machinery replacement program and turf management strategies to address underlying problems with the greens and fairways.

However, it became apparent that the club needed to increase its spending on the course and to look at other ways of funding works.

Bisseker researched various options and in doing so discovered that the Northern Territory Government was about to call tenders for the ground maintenance of a number of Darwin sporting venues.

From this the club won a three-year tender with the Department of Sport and Recreation to maintain 14 sporting ovals. This included the State's premier facility, Marrara Oval, where recently the club's maintenance staff prepared the ground for international Test cricket matches and the Western Bulldogs-Port Adelaide AFL game.

In addition to the sports maintenance tender, Bisseker has established a 50-hectare turf farm, off site, where the club has leased the land and entered a partnership with a local landscape company. This turf will be used for replacing turf on tees, greens and fairways as well as sold commercially.

Due to Bisseker's experience, many approaches have been made to the club for assistance with turf management. The club has recently gone into partnership with the

Larrakia Nation Association to establish another farm where the turf will be used on a native title subdivision.

Due to the increase in cash flow, apart from purchasing new machinery, the club has been able to start the installation of concrete cart paths and continue its tee renovation program.

In May, the club invited Peter Thomson to visit the course and put in place a blueprint for further works. Thomson is compiling a report and plans that will include bunker redesign and an upgrade to the irrigation system.

The course is a links style layout with Tidwarf greens, Queensland blue couch fairways and uses recycled water for irrigation. The average quality of the effluent water has lead Bisseker to plant test plots of Sea Isle 2000 seashore paspalum. Bisseker reports that the results so far are encouraging with good turf texture, colour and quality.

Future projects for the club's turf maintenance team include work on the Defence Force's Robertson Barracks tank parade ground, travelling to Bathurst Island to renovate the town's football oval and the Darwin High School's sporting grounds. ♣

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A golf course fairway with Tifton 328 in the foreground and common couchgrass behind. Note the disease in the Tifton 328

In this latest instalment of AGCSATech Update, John Neylan addresses the issue of soil testing and looks at patch diseases in Queensland.

SOIL TESTING – WHY WE DO IT?

At this time of year many golf clubs are taking soil samples for nutrient testing while many suppliers of this service are pushing the benefits of their particular soil test package. Soil testing is a very useful turf management tool, but do you know why you are testing your soils and what you are trying to achieve from the results?

As with any tool, you have to understand what it does and how to get the best out of it. There are several reasons why you may undertake a soil testing program:

- Problem diagnosis (e.g. salinity, lack of response to fertiliser);
- Monitoring:
 - Effects of soil amendments (e.g. lime, gypsum);
 - Salinity, sodium effects due to water quality;

- Impact on soil chemistry due to the use of recycled water;
- Benchmarking soil conditions.

Once you have established the reasons why a soil testing program is to be implemented, you then need to understand what the results mean. It has become commonplace for turf managers to unquestionably implement the recommendations without relating it to plant response and surface quality. For example, if the pH is 5 and the turf is growing strongly, providing a high quality surface and coping with wear, does lime have to be applied?

In developing a fertility program it is very important to understand how your turf is performing and responding to nutrients. In many respects the old adage of "if it ain't broke, don't fix it" applies.

The best turf managers undertake regular soil tests and use it to monitor for any dramatic changes in soil chemistry and how the soils have responded to the fertility program – not to necessarily make any changes.

There are different methods used for testing for soil nutrients and providing the laboratories use methods that comply with the Australian Soil and Plant Analysis Council guidelines, they can be depended on. The key is, once you have selected a laboratory continue to use them. The important factor is continuity.

If soil testing is to be used as a monitoring tool it is only relevant over time if the same laboratory is used. Do not fool yourself that soil nutrient testing is absolute – it is not. It gives you a reasonable guide as to the soil nutrients that are available to the plant and becomes more useful over the years of regular soil testing (Figure 1).

In 2000, when AGCSATech was established, it had a charter of providing independent research, consultancy and analytical services to the turf industry. Analytical services, and in particular soil testing, has provided funding for research projects and provided AGCSA members with access to telephone advice free of charge.

The travel costs of attending a recent trip to the Queensland Golf Industry Conference was covered by AGCSATech services as was an additional day spent investigating the problem patch diseases in this state (see below).

So, the next time that you are considering soil testing, give AGCSATech a call (speak to either myself or technical officer Andrew Peart) and see what we have to offer – it helps to support your industry.

SOIL PHYSICAL TESTING

Soil physical testing for greens construction has again come under scrutiny and it is professionally annoying to see what has occurred. It involves a golf course construction that had a specification for USGA type greens with a peat amendment.

Firstly, the greens mixes failed to come up to specification because of a low quality peat, which was only discovered after the green had been built. The problem was that there had been very little quality control in checking that the sand/peat mix complied with the specification.

Anyone that has actually studied the USGA guidelines would know that the peat must be at least 85 per cent organic matter by weight as determined by a loss on ignition test. The peat



% Sodium Base Saturation

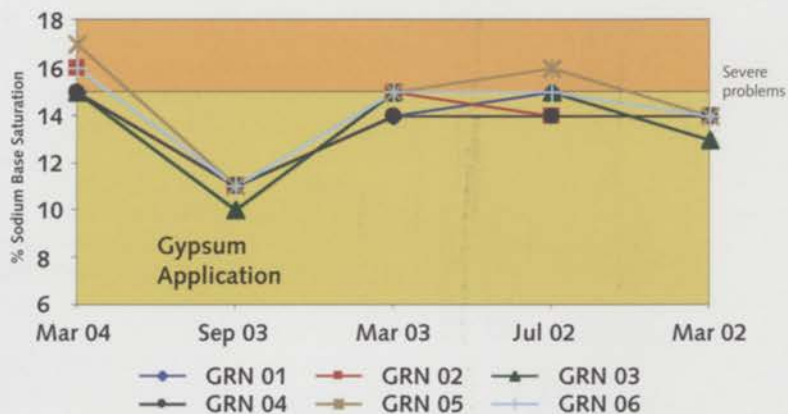


Fig 1: Monitoring of sodium base saturation over time and the effects of an amendment such as gypsum

that was used had about 25 per cent organic matter (this was on the label!). With peat, if it is not organic matter it is likely to be silt and clay particles which will have a deleterious effect on the drainage rate. The critical question is, 'Was the peat and sand/peat combination tested?' Unfortunately the answer is no.

The other concern was a lack of appreciation of the difference between adding an amendment based on a volume basis versus a weight basis. There is a very big difference.

Given that the bulk density of an organic amendment such as peat is about 0.5 tonnes/cubic metre compared to sand with a bulk density of 1.5 tonnes/cubic metre, there is a big difference if the organic amendment is added at 5 per cent by weight compared to 5 per cent by volume.

If it is calculated on a weight basis it is 50kg/tonne compared to 17kg/tonne on a volume basis. A big difference!! Amendments for modifying rootzone sands are added on a volume basis.

There are well tested guidelines for greens construction and there is no excuse for not using them. If there is a specification its strength is only as good as the quality control program. Once a specification is established, test, test and test again. It is a small investment to make sure that the job is done correctly the first time.

PATCH DISEASES IN QUEENSLAND

In ATM Vol 6.4, we mentioned the meeting held with Dr Bruce Clarke and several Queensland superintendents during the 20th Australian Turfgrass Conference to discuss the problem patch diseases affecting various Queensland golf courses.

As a follow up, AGCSATech visited two golf courses that had suffered symptoms over the past two to three years. Disease samples were taken from three sites and submitted to the Department of Primary Industry (Victoria) plant pathologists for diagnosis. Soil and plant tissue samples have been examined as well.

The plant pathologists diagnosed "Take-all" fungus (*Gaeumannomyces graminis*), *Bipolaris*



Take-all patch in greens surrounds

spp. and *Curvularia spp.* in all samples, with the *Bipolaris spp.* and *Curvularia spp.* recovered less frequently. Interestingly, large amounts of *Trichoderma spp.* were recovered from two of the samples.

Gaeumannomyces spp. has been identified in Queensland golf greens by Marcelle Sterling (Biological Crop Protection Ltd, Brisbane) and is widely acknowledged as the causal organism for most of the patch diseases experienced on hybrid couchgrass greens and couchgrass fairways.

Dr Clarke also "diagnosed" the symptoms as being likely to be a root disease such as *Gaeumannomyces spp.* The presence of *Bipolaris spp.* and *Curvularia spp.* is to be expected as they are common leaf diseases to be found on dormant couchgrass.

During this small study, the circumstance where the disease was most prevalent was;

- Where there was an excess of thatch;
- The predominant couchgrass type was Tifton 328.

Samples were taken from greens surrounds and fairways. In the fairway situation where there was common "green couch" and Tifton 328 beside each other, the Tifton 328 was severely affected by the disease with very little in the common green couch.

There appears to be a variety difference, however, the amount of thatch in the Tifton 328 was substantially greater. The common factor for the samples taken from surrounds was the excess of thatch.

Soil and plant tissue analysis results indicated that potassium was low; however, manganese was more than adequate. Manganese was a key nutrient along with potassium that Dr Clarke indicated was important in combating such diseases.

From this very basic set of observations it would appear that thatch control and nutrition are the key elements in avoiding severe disease outbreaks. On one golf course where this disease had severely affected fairways, a program of thatch removal and a higher level of nutrition has virtually eliminated the symptoms.

It is important to note that the work of Sterling indicated that these root diseases only became a severe problem when the turf was under stress. Poor nutrition is a stress that could well cause the disease to manifest itself. ♣

Ammonium Nitrate

Under Review



By November 2004, strict legislation could surround the use of ammonium nitrate

Global terrorism has affected so many parts of the modern world and now it seems to have come as far as having an impact on the turf industry. AGCSATech technical officer Andrew Peart looks at the planned legislation to restrict the use of ammonium nitrate and its potential impact on the turf industry.

Ammonium nitrate has been used as an explosive and as a fertiliser extensively in both horticulture and agriculture for decades. However, recent use of this product for terrorism purposes has resulted in proposed changes of legislation by which ammonium nitrate can be purchased, transported and stored. It is the intention for this legislation to be implemented before the target date of 1 November, 2004.

Ammonium nitrate as an explosive

Ammonium nitrate (NH_4NO_3) was first synthesised by Johann R. Glauber in 1659 when he combined ammonium carbonate and nitric acid, but the ultimate power of the explosive was not discovered until the end of World War 1.

At the end of the war, a large surplus of ammonium nitrate was left when the first ammonia synthesis plant in Germany was closed. In an attempt to break apart the pile for removal, explosives were drilled into holes in the pile. Contrary to what was expected, the whole mound detonated with a blast of 4,500 tons, killing 600 people.

In 1947 a French freighter delivering ammonium nitrate fertiliser to Texas City exploded after the ship's deck caught on fire. The crew were oblivious to the dangers of ammonium nitrate and continued to dock.

Later in the morning the resultant explosion, which was of kiloton scale, created a tidal wave that swept ashore. It was estimated that more than 567 people were killed and refineries that

were located on the waterfront continued to burn for six days afterwards.

In April, 1995 a truck bomb containing 4800 pounds (over two tonne) of ammonium nitrate fertiliser was detonated, killing 168 people in the Alfred P. Murrah Federal Building in Oklahoma City. The terrorism attack that occurred in Bali was another case where ammonium nitrate was used as an explosive. It is also a preferred terrorism explosive used by the IRA.

Ammonium nitrate as a fertiliser

Ammonium nitrate is a synthetic inorganic nitrogen carrier that contains nitrogen obtained from the air and combined with other substances by chemical methods.

Beard (1973) states that characteristics associated with these types of fertilisers are;

- High water solubility;
- Rapid initial plant response;
- Nitrogen availability has minimum temperature dependence;
- High foliar burn potential;
- Limited residual response of 4-6 weeks;
- Subject to loss by leaching if in the nitrate form;
- Can be dissolved in water for application as soil drench or foliar spray;
- Rapid cold temperature plant growth response;
- Low cost per unit of nitrogen.

The common forms of these types of fertilisers are shown in Table 1.

Table 1. Common forms of nitrogen fertiliser

Carrier	Chemical formula	Nitrogen content (%)
Ammonium sulphate	$(\text{NH}_4)_2\text{SO}_4$	20.5
Ammonium nitrate	NH_4NO_3	33
Sodium nitrate	NaNO_3	16
Calcium nitrate	$\text{Ca}(\text{NO}_3)_2$	15.5
Ammonium chloride	NH_4Cl	26

Ammonium nitrate is widely used for turfgrass fertilisation. It contains 50 per cent of the nitrogen in the nitrate form and 50 per cent in the ammoniacal form. It is slightly acidifying, however less than ammonium sulphate and has a lower loss of gaseous ammonia than the other carriers listed. Ammonium nitrate can harden and cake unless properly conditioned during manufacture.

Security sensitive ammonium nitrate (SSAN)

In December 2002, the Council of Australian Governments (COAG) agreed to a national review of the regulation, reporting and security around the storage, sale and handling of hazardous materials. The review was being

guided by a steering committee led by the Office of the Prime Minister and Cabinet.

The review was being conducted in four parts: ammonium nitrate, radiological sources, harmful biological materials and hazardous chemicals. Ammonium nitrate was given priority because of its history of terrorist use and concerns about its ready availability.

Security sensitive ammonium nitrate (SSAN) is defined as ammonium nitrate, ammonium nitrate emulsions and ammonium nitrate mixtures containing greater than 45 per cent ammonium nitrate, excluding solutions (these include dangerous goods under the Australian Dangerous Goods Code with the UN numbers 1942, 2067, 2068, 2069, 2070, 2071, 2072, 3375 and 3139 where applicable).

An authority would be required to import, manufacture, store, transport, supply, export, use or dispose of SSAN.

Persons seeking an authority will be required to demonstrate a legitimate need for access to SSAN. Legitimate need is likely to include use in commercial production processes, mining, quarrying, the manufacture of fertiliser and explosives, educational, research and laboratory use, commercial agricultural use by primary producers, and services for transportation, distribution and use of the product.

Household and domestic use and **the fertilisation of recreational facilities will not be considered a legitimate need.**

The Office of the Prime Minister and Cabinet made the decision that the loss of ammonium nitrate would not have a detrimental impact to individuals or managers of recreational turf facilities.

This decision was taken due to the fact that there were perceived adequate alternatives to this fertiliser for the home gardener and turf managers.

The impact of withdrawing ammonium nitrate to primary producers was seen as far

more devastating to their businesses so its supply, use and transportation will be much more heavily scrutinised.

Turf producers will still be able to use ammonium nitrate fertiliser but as with other primary producers will have to undergo the same stringent accountability which will include background checking by ASIO and the Federal Police.

Suppliers found to be supplying ammonium nitrate to illegitimate users will be prosecuted under new legislation.

In Queensland, the proposed changes in legislation will see ammonium nitrate classified as an explosive, Dangerous Goods Class 1. Ammonium nitrate is presently classified as an oxidising agent, Dangerous Goods Class 5.1. The amount of ammonium nitrate used in agriculture in Queensland is as low as 4 per cent with all other use being as an explosive in the mining industry.

Impact on agriculture

The decision to tighten regulations on the sale and storage of ammonium nitrate has reduced supply into the market. Incitec Pivot, Australia's largest supplier of nutrients to agriculture, has ceased to sell ammonium nitrate into the agriculture market.

It believes continuing to sell the product is not necessary as there are alternative fertiliser products to replace ammonium nitrate fertiliser.

The substitute products include urea (46 per cent N), ammonium sulphate (35 per cent N), ammonium sulphate nitrate (26 per cent N – 7 per cent as nitrate and 19 per cent as ammonium), urea ammonium nitrate (a liquid containing 32 per cent N – 16 per cent as urea, 8 per cent as nitrate and 8 per cent as ammonium), Liquifert N (46 per cent N as urea. A soluble solid designed for use in irrigation systems) and blended fertilisers containing less than 45 per cent ammonium nitrate.

Impact for turf managers

The major difference that the turf industry experiences as opposed to most other agricultural and horticultural enterprises is that it does not produce yield.

The objective of fertilising turf is to maintain a healthy turf sward that can sustain and recover from the wear that is imposed on it. The only exception to this is when establishing turf, either by sprigging of seeding and higher rates of nitrogen fertiliser are used to promote growth so a playing surface can be achieved in the shortest possible time. It is in these instances where frequent applications of a quick release ammonium nitrate fertiliser have been used very effectively.

Many forms of nitrogenous fertilisers are now blended in either a slow release or controlled release form. This has the advantage of providing longer-term nitrogen availability to the plant as well as the reduced likelihood of being lost through either leaching (nitrate form) of volatilisation (ammonium form).

Due to the scrutiny most turf managers now endure, this type of fertiliser regime or the use of quick release fertiliser applications in reduced rates have resulted in the general minimisation on the quantity of nitrogen turfgrasses receive.

Generally, most superintendents have seen benefits in overall turf quality and with the added benefits of reduced thatch accumulation, reduced clipping yields and more consistent growth patterns. 📌



Ammonium nitrate: under review

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Meet the President Jeff Gambin



AGCSA president Jeff Gambin has spent the past five years as an AGCSA Board member



AGCSA president Jeff Gambin (centre) with (from left) AGCSA chief executive Steven Potts and Board members Jon Penberthy, Martyn Black and Martin Greenwood

In the last edition of ATM, newly appointed AGCSA president Jeff Gambin outlined his trip to the United States earlier this year. In this edition, ATM fires some questions at the Gold Coast Burleigh Golf Club superintendent to find out what makes him tick and how he plans to lead the AGCSA during his two year term.

Jeff, you are the current superintendent at Gold Coast Burleigh Golf Club. How long have you been there and where have you come from in regards to your career in the turf industry?

I have just finished my 10th year at Gold Coast Burleigh Golf Club. I am hoping that we will have our new master plan approved at this year's AGM which will give me and the staff some exciting projects to do over the next 10 years.

I have had some great times, but of course due to changes in the board, I have had some very low times. I hope those times have made me stronger and haven't turned me into a bitter and twisted man. (My son thinks it has changed me, unfortunately for him!)

Before Burleigh, I was at Royal Pines Resort. The title they gave me was department head of golf and landscape maintenance. Sounds impressive! I only lasted three years due to

being overworked and underpaid. It was the only time my wife told me to find another job or another family. That same weekend I got a call about the Burleigh job. Talk about fate!

Prior to the Pines I had 10 great years at Coolangatta and Tweed Heads. Basically I did all my growing up at Tweed. Doug Robinson employed me as one of two qualified greenkeepers after Tweed decided to extend to 36 holes.

I was very fortunate to become Doug's assistant for five years and during that period I learned so much. I then took over when Doug went to build Sanctuary Cove. What a learning experience that was with 36 holes of bentgrass greens; summer was tough but I had a very supportive committee, manager and staff.

I did my training at Grovely TAFE in Sydney while employed at Manly Golf Club. The superintendent had been there before World War II. What a great guy Bobby Smith was.

You have some 20 years involvement at state and national association level, the last five years as an AGCSA Board member. How has this time prepared you for the role of AGCSA president and what do you hope to bring to the role?

My involvement with superintendents' association started with admiring Doug Robinson and Loch Ledford who were both superintendents at Manly during my five years there and who were both heavily involved in association matters.

When I took over at Tweed and started attending field days in Queensland, Doug was elected as Queensland president. They needed a couple of committee guys to help out so I put my hand up. I remember being responsible for organising field days and then introducing a newsletter. I was Doug's vice-president for a couple of years before taking over as president when he left to become AGCSA president.

There is no doubt in my mind that for me this was a great learning curve and the experience I gained proved valuable for when I became an AGCSA Board member. The five years I spent on the Board before taking over as president in June also steeled me for the rigours of being president.

I would have been quite happy to continue to help the association as a Board member, but I felt the time was right so I will give it my best shot. I feel very fortunate to have the experience of the other Board members and more importantly the expertise of the individual staff members. I don't think our members realise how fortunate our association is to have such a dedicated group.

What makes a good association president?

I believe that a good president is one that can communicate with all members. We have such a huge diversity of members that range from your Royal clubs to your local nine-holers. We need to try and increase our membership numbers so we need to get all clubs across the country to join as members.

Over the last 20 years I have been fortunate to attend all conferences around the country and feel I have made many friends that I could call if I needed any help for the association.

What changes would you like to see/make during your term as president?

Unfortunately too many colleagues and friends have lost their positions at what they thought was a secure job. I know that this is one area that I hope I can get the AGCSA to help out with.

AGCSA chief executive Steven Potts has already made some progress with this, particularly in Victoria. I just want to make sure that we can give some support and pass on some helpful hints when our members are going through a tough time.

I am confident that with the support we are getting with the newly created education and



Gold Coast Burleigh Heads Golf Club, home for the past 10 years of new AGCSA president Jeff Gambin.



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Meet the President Jeff Gambin



The 170m par 3 17th at Gold Coast Burleigh Golf Club

environmental committees that we will truly have a united turf body in my time as president.

Individuals from the different turf associations are all supportive of working together for the

betterment of Australian turfgrass management. There are no ego heads among them which is great for all concerned.

The Australian Turfgrass Conference continues to grow from strength to strength and this year's Melbourne conference was a huge success. Why the decision then to host the 2005 conference in Moama/Echuca?

The last conference in Melbourne was a huge success, thanks to the support of the different associations, the trade, the members and, of course, our staff. It is going to be exciting to see what sort of support we can generate for Moama/Echuca. Knowing how competitive the NSW boys are I am sure they will be trying to outnumber the Victorian contingent.

The trade has been asking for a regional conference for several years now so I hope they support it. I really think our biggest problem is going to be deciding on the different venues that we have to choose from.

Attendances at the AGCSA's roving workshops have been poor in recent times. How can the association combat this worrying trend?

I really don't know what the answer is with the problems of getting numbers to our workshops. We always have the input from our state presidents, but apart from NSW we always struggle for numbers.



The 2005 Australian Turfgrass Conference and tradeshow will be held in Moama in an attempt to make the event more accessible to regional members

Meet the President Jeff Gambin

Maybe we are trying to fit too much into our calendar with all the state field days along with individual companies inviting members to educational days.

If there was one thing about the industry you could change, what would it be and why?

I am hoping that we can continue to change the image of golf course superintendents to the point where, like it is in the US, the superintendent is on the same level as the club professional and manager. You pick up a scorecard at a golf club in the US and it has the superintendent's name on it.

Those little touches are where we should be at. For example at my club you pick up the annual report and everyone gets their name and title on the inside cover except for the superintendent.

What has been your proudest moment as a superintendent?

My proudest moment as a superintendent was definitely winning the Fellowship Award (now known as the Excellence in Golf Course Management Award) in 1995, and getting through the presentation of that trip in front of a full conference breakfast. Having hosted six televised tournaments is also pretty fulfilling.

What has been the best piece of advice you have received about the job?

The best piece of advice was definitely to make sure you put your family first when making any decisions, because they are going to be the ones that will always be there for you, not any employer! ☺



Australian Golf Course Superintendents Association

RAPID FIRE...

Family:

Beautiful wife Karen, who has put up with me for 26 years. Daughter Jasmine (21), a hairdresser; son Ryan (19), competitive swimmer/pool attendant.

Nickname:

'Gambo' has been around for a while.

Favourite food:

Pasta. I guess it must be the European family background.

Favourite sporting team:

No question – Rabbitohs! Aside from that, any Australian team.

Golf handicap:

My swing – 27.

Pick for 2004 Centenary Australian Open at

The Australian:

Robert Allenby will carve up Rob Ashes' course.

Greatest rugby league player:

I grew up admiring Ron Coote, but it is hard to go past 'Joey' Johns.

Favourite pastime:

Keeping fit and out of trouble (with the wife and kids). The dogs think I'm okay.

Driving or flying:

I just drove to Perth, so what do you think!

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Lysimeters being installed into plots prior to establishing turfgrass

Development and implementation of management strategies that minimise nitrogen leaching from turfgrass is essential for the sustainable development of the Australian turfgrass production industry. Nitrogen leaching is problematic as it can trigger algal blooms and compromise water quality. The University of Western Australia has evaluated the effects of irrigation and fertiliser regimes on nitrogen leaching during turfgrass production on sandy soils.

Applying nitrogen fertiliser is an integral part of turfgrass management and is needed for maintaining turfgrass growth and ensuring that the turfgrass is aesthetically acceptable.

Nowadays, people are more aware of the detrimental effects on the environment of improper use of nitrogen fertilisers. Poor nitrogen fertiliser management can cause nitrogen leaching, and increase the emissions of greenhouse and ozone depleting gases. Nitrogen leaching is problematic as it can degrade surface-water and ground-waters resulting in eutrophication and non-potable water supplies.

Nitrogen leaching is best minimised by ensuring nitrogen is applied at a rate that the turfgrass is able to utilise. The approach taken to achieve this will vary depending on the turfgrass nitrogen requirements, but also on the biological, chemical and physical attributes of the soil.

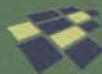
Fertiliser nitrogen can be taken up by turfgrass, denitrified or volatilised to nitrogen gases by soil microbes, or immobilised into the soil organic matter (see ATM Vol 3.4, pp 36-37). Any nitrogen not involved in these processes is likely to be leached. Additional nitrogen may also become available to the turfgrass if management practices disturb the soil and cause nitrogen to be released from soil organic matter, and if mower clippings are returned to the turfgrass.

The ability of turfgrass and soil microbes to utilise fertiliser nitrogen will also be affected by the rate that dissolved nitrogen moves through the soil profile. Plant uptake and soil biological processes often occur at greater rates in the surface soil than the subsurface soil.

So, fertiliser and irrigation management practices that maintain nutrients from the dissolved fertiliser in the surface soil should increase turfgrass nitrogen uptake and soil 'retention', and decrease nitrogen leaching. For example, irrigation rates and frequencies that do not cause water to move beyond the rooting zone have been shown to decrease nitrogen leaching.

Recommended strategies for minimising nitrogen leaching are more likely to be adopted by turfgrass producers if it is demonstrated that they do not have a detrimental effect on turfgrass growth and quality.

Consequently, the University of Western Australia, in partnership with Horticulture Australia Ltd and industry groups, have conducted a three-and-a-half-year project investigating irrigation and fertiliser management practices that maximise turfgrass growth, while



minimising nitrogen leaching from sandy, free-draining soils in south-western Australia.

This article focuses on the effects of irrigation and fertiliser regimes on nitrogen leaching from turfgrass production. Information on the effects of irrigation and fertiliser regimes on turfgrass growth and quality appeared in ATM Vol 6.2, pp 6-7.

Fertilisers and Irrigation Regimes Trialled

The study evaluated four fertiliser types (conventional (water-soluble), control-release, pelletised poultry manure and pelletised biosolids), three application rates (100, 200 and 300 kg N ha⁻¹ per 'crop'), two irrigation rates (70 per cent and 140 per cent daily replacement of net evaporation), and three replicates.

The 70 per cent rate is referred to as 'low irrigation', while the 140 per cent rate is referred

to as 'high irrigation'. The nutrient contents of the fertilisers are summarised in Table 1.

Irrigation and fertiliser treatments were applied over 16–28 weeks, after which the turfgrass was harvested and then allowed to re-grow from the remaining rhizomes.

Crop 1 was grown from 24 October, 2001 - 13 February, 2002 (16 weeks); Crop 2 from 13 February - 3 September, 2002 (28 weeks); Crop 3 from 3 September 2002 - 27 January, 2003 (20 weeks); and Crop 4 from 27 January - 19 August, 2003 (28 weeks).

Plots (10m²) were established on a free-draining soil of low chemical and biological fertility and low phosphorus retention index (PRI). Irrigation occurred daily from October–April each year; and then every second day from April–September when daily net evaporation was less than 5mm; and then

occasionally from May–August when weekly net evaporation exceeded 5mm.

Fertilisers were applied at different frequencies depending on the type. For example for the conventional treatment, 20 per cent of the fertiliser was applied at the commencement of the crop, with the remainder applied every three weeks. For the control-release, 20 per cent of the fertiliser was applied at the commencement of the crop, with the remainder generally applied every six weeks. For the two organic treatments, 70 per cent of the fertiliser was applied at the commencement of each crop, with remainder applied every four weeks.

Nutrient leaching was measured using soil lysimeters (250mm in diameter by 980mm in length) installed in the plots before the commencement of the study. The surface of each lysimeter was approximately flush with the surface of the plots, and leachate collected from a bucket under each lysimeter.

The turfgrass on the lysimeters was irrigated, fertilised, clipped and harvested at the same time as the turfgrass plots. Fertilisers applied to the lysimeters were weighed separately to those applied to the plots to ensure that the lysimeters received the correct amount of fertiliser.

Table 1. Chemical characteristics of fertilisers used during the experiment. The conventional and control-release fertiliser treatments include a combination of two fertilisers, with conventional I and control-release I only applied once at the beginning of each crop.

Fertiliser	Nitrogen (%)	Phosphorus (%)	Potassium (%)
Conventional^a			
Conventional I	4	7	7
Conventional II	34	0	0
Control-release^b			
Control-release I	26	11	10
Control-release II	25	2.2	4
Pelletised poultry^c			
Pelletised biosolid	5.5	1.5	3

^a Conventional I also contained 130 mg S g⁻¹, and 150 mg Ca g⁻¹

^b Control-release I also contained 100 mg S g⁻¹, and control-release II also contained 41 mg S g⁻¹, 30 mg Ca g⁻¹, 50 mg Fe g⁻¹

^c Pelletised poultry also contained 5.1 mg S g⁻¹, 19 mg Ca g⁻¹, 4.7 mg Na g⁻¹, 2.8 mg Mg g⁻¹, 130 µg Cu g⁻¹, 240 µg Zn g⁻¹, 325 µg Mn g⁻¹ and 185 µg Fe g⁻¹.



Installed lysimeter six weeks after planting



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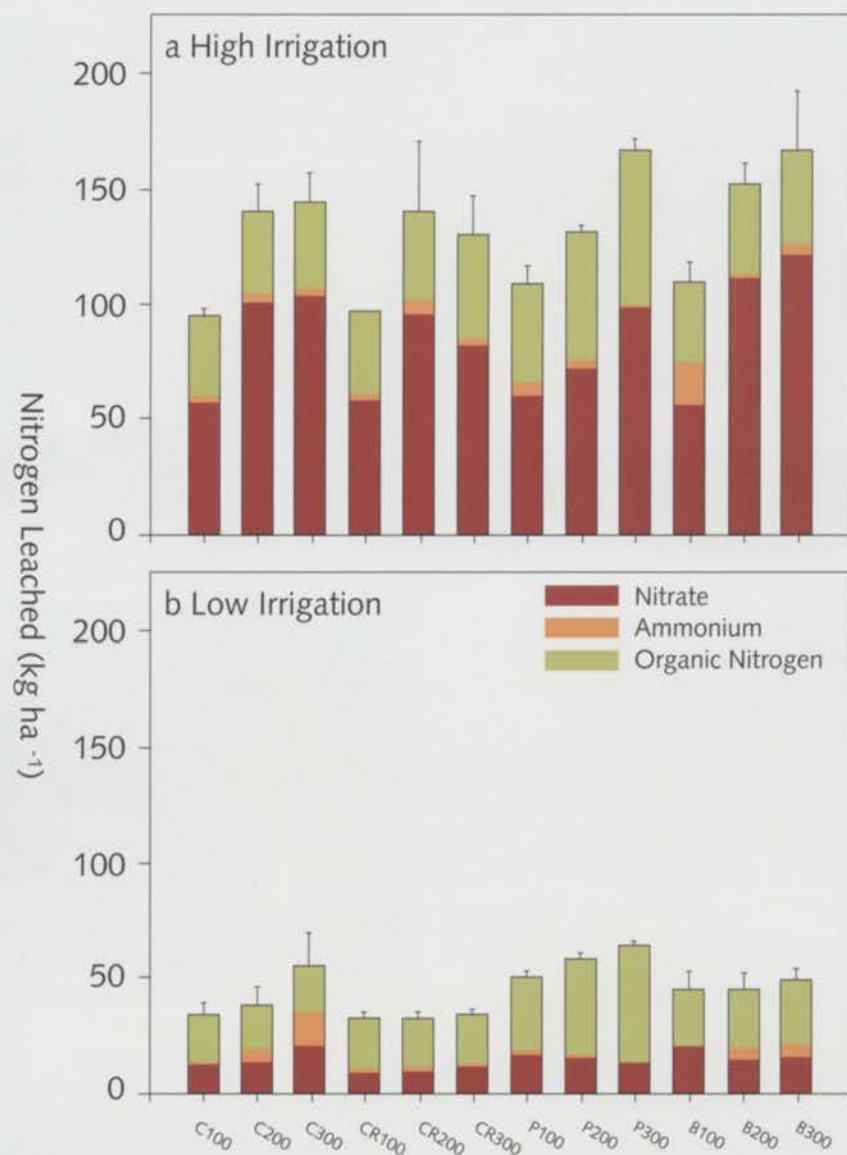
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Figure 1. Proportion of nitrogen leached as nitrate, ammonium and organic nitrogen under high (a) and low (b) irrigation. Values are means of three replicates. The total height of the bar equals the total nitrogen leached after 22 months, with the error bar representing the standard error of the total nitrogen mean. Where: C is for conventional; CR, control-release; P, pelletised poultry; B, pelletised biosolids.



Proportions of nitrogen leached under low and high irrigation regimes

Total Nitrogen Leached

After 22 months, total nitrogen leaching ranged from 33-167 kg ha⁻¹ (Figure 1). Increasing the irrigation rate significantly increased the average amount of nitrogen leached from 44kg ha⁻¹ to 132kg ha⁻¹. At the high irrigation treatment, the only difference in total nitrogen leaching

between fertiliser types was between pelletised biosolids (average of 143kg N ha⁻¹ across all application rates) and the control-release (average of 123kg N ha⁻¹ across all application rates).

The total nitrogen leached represented 11-28 per cent of the nitrogen applied to the high irrigation treatments. For the low irrigation

treatment, the total amount of nitrogen leached did not differ between fertiliser treatments (types or rates), and represented less than 12 per cent of the nitrogen applied.

Forms of Nitrogen Leached

The nitrogen leached was mainly nitrate or organic nitrogen depending upon the irrigation rate (Figure 1).

For the high irrigation treatment, 55-72 per cent of the nitrogen leached was in the nitrate form, 25-42 per cent in the organic nitrogen form, while the remainder was ammonium (<5 per cent). For the low irrigation treatment, 27-43 per cent of the nitrogen was in the nitrate form, 40-78 per cent in the organic nitrogen form, and 5-20 per cent in the ammonium form.

Timing of Nitrogen Leaching

The pattern of nitrogen leaching varied with time, with large differences between the two irrigation treatments (Figure 2).

For the high irrigation treatments, 46-76 per cent of the total nitrogen leached during the first crop with fortnightly nitrogen losses as high as 50kg ha⁻¹. For the low irrigation treatments fortnightly losses of nitrogen were less than 9kg ha⁻¹, with the greatest losses occurring during the second winter (June 2003) of the study.

For the high irrigation treatment, increased nitrogen losses were associated with nitrate leaching, while for the low irrigation treatments, increased nitrogen losses were associated with organic nitrogen leaching.

Turfgrass Growth and Quality

The effect of irrigation and fertiliser treatments on turfgrass growth and quality has been presented previously (ATM Vol 6.2, pp 6-7). Briefly, we found that the low irrigation regime not only maintained turfgrass growth, but maximised water use efficiency.

Furthermore, the high irrigation rate was detrimental to turfgrass growth and colour during turfgrass establishment. For turfgrass produced on a sandy soil, conventional (i.e., water-soluble) and control-release fertilisers produced better growth and colour than pelletised poultry manure and pelletised biosolids at nitrogen application rates of 100-300kg ha⁻¹ per crop.

Concluding Comments

Nitrogen leaching from turfgrass production systems on sandy soils will be low if irrigation regimes supply sufficient water for turfgrass growth without causing excess water to move beyond the rooting zone.

Furthermore, under optimised irrigation regimes we expect nitrogen leaching to be low

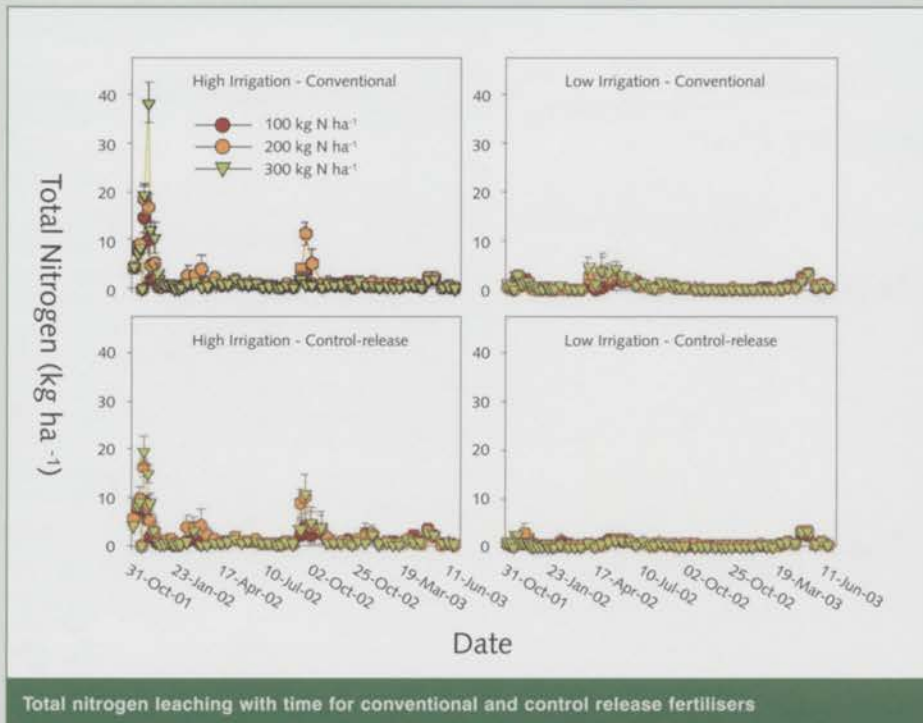


Figure 2. Total nitrogen leaching with time for the conventional, control-release, pelletised poultry and pelletised biosolids at three nitrogen application rates, and under high and low irrigation. Values represent means (\pm standard errors) of three replicates.

Continued on next page

from all fertiliser types as long as nitrogen is applied at a rate and frequency that matches turfgrass requirements.

The risk of nitrogen leaching is greatest during the establishment of the turfgrass, and to lesser extent following harvests of sod (i.e., turfgrass rolls). Furthermore, the irrigation and fertiliser management practices that limit nitrogen leaching can also benefit turfgrass growth and quality.

We recommend that total nitrogen, in addition to mineral forms of nitrogen, should be measured when assessing the influence of management practices on nitrogen leaching from turfgrass, as significant proportions of the nitrogen leached under turfgrass in our study was in the organic nitrogen form.

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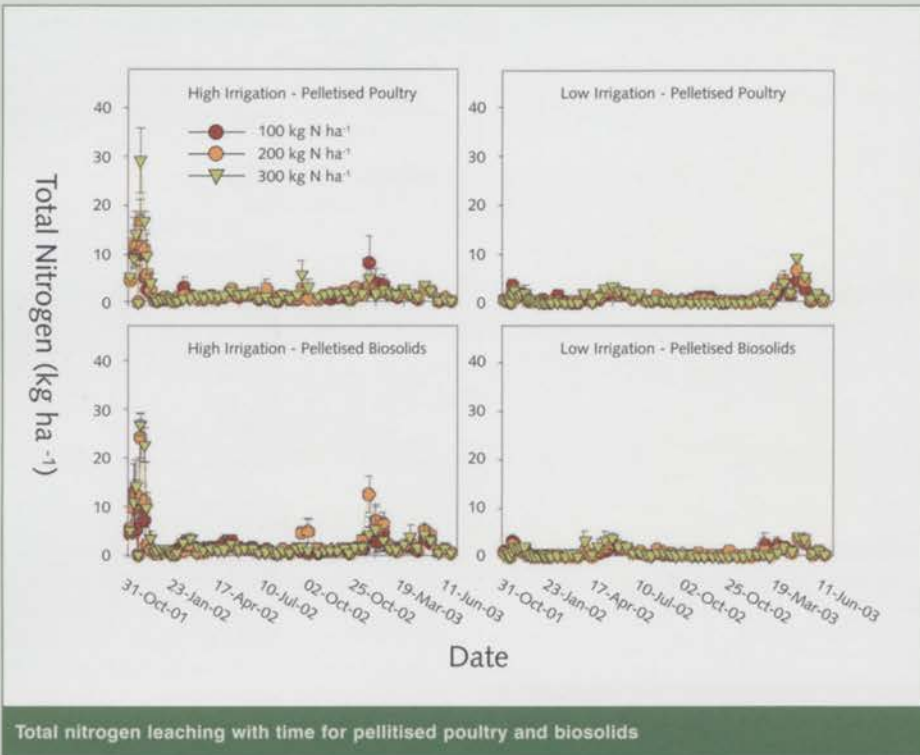
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Acknowledgements

This research is supported by Horticulture Australia Ltd (Project TU00007), Turf Growers Association of WA, GCSAWA, Scotts Australia, CSBP Ltd., Organic 2000, MicroControl Engineering (Rainman), City of Stirling, City of Nedlands, WA Water Corporation and WA Department of Environment. City of Stirling, City of Canning, City of South Perth and the GCSAWA are thanked for providing apprentices to assist at critical times during the trial. Michael Blair and Chris Marsh are thanked for assisting with plot maintenance. Challenger TAFE staff and students are thanked for assisting with turfgrass harvests. Members of the UWA Turf Industries Research Steering Committee are thanked for their support and advice throughout the field trial. Louise Barton, George Wan and Tim Colmer are from the Faculty of Natural and Agricultural Sciences, University of Western Australia; <http://www.fnas.uwa.edu.au/turfresearch/index.htm>



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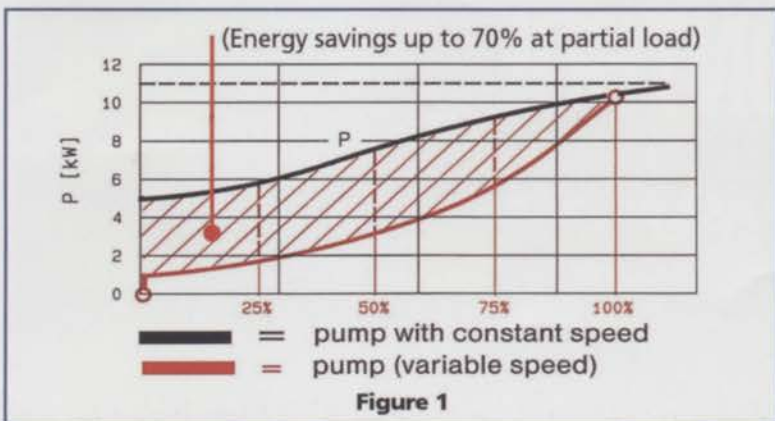
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Brett Burgess
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IRRIGATION INNOVATION

This edition's Innovative Way heads back to Sydney to rummage through the shed of Avondale Golf Club superintendent David Warwick.

As mentioned in ATM Vol 6.3, Warwick has a bit of the Inspector Gadget about him and has a number of interesting devices floating

around the workshop, and this segment focuses on a small trailer mounted irrigation contraption.

The origins of this innovation go back to when Warwick was at Arundel Hills Country Club where mechanic Craig Priddle came up with the idea of mounting a hose reel, which can spin 360 degrees, on to a trailer.

The design remedies a number of issues. Being mounted on the back of a trailer means easy transportation around the course and negates the need for the hose to be dragged. Also, being able to turn 360 degrees means that which ever direction the groundsman goes, the hose follows without getting tangled.

To add to the package, the green tool box mounted on the front of the trailer contains everything a groundsman needs to make running repairs including screwdrivers, replacement washers and coupling valves, nozzles and testers. 🛠️

Syngenta recognises our innovative superintendents and is proud to present David Warwick and staff at Avondale Golf Club with a \$150 AGCSA book voucher.

If you have, through necessity, devised or created a tool/piece of machinery gadget or made alterations to an existing piece of machinery or workplace tool to make the job easier, then we want to know about it! Call or email Brett Robinson at the AGCSA (03) 9548 8600 or brett@agcsa.com.au

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Alice Springs superintendent Grant Reuther

Full Name: Grant Reuther
Nickname: Reuts
Age: 41
Family: Wife Tarnie, 2 boys Nicholas (15) and Ben (12)
Years as a superintendent: 17
Years as an AGCSA member: 17
Years at current club: 19
Number of staff: 6
Course specs: 18-hole, 6196m, par 72
Favourite piece of machinery?
 The spotlight on my ute for catching vandals, roos, rabbits etc...
Most embarrassing moment as a superintendent?
 Falling off a pontoon into the irrigation lake in front of all my staff.

Funniest moment you have seen on course?
 Catching a couple on one of the greens naked in the early hours before a tournament.
Plans for the course over the next two years?
 Sprig the remaining fairways with seashore paspalum.
Best advice you have ever received on the job?
 Plan well before you attack.
One thing about your job you would change?
 Not letting golfers on to the course.
Best part about being a superintendent?
 Self satisfaction when you've prepared the course for a tournament.
Worst excuse from a staff member?
 Sorry I'm late boss, I've just got out of the watchhouse.
Favourite spot on the course?
 My home on the second fairway
Career highlight?
 Being named Australia's 59th best course this year (*Australian Golf Digest*).
Overseas course you'd most like to visit?
 Cascata, Las Vegas.
Favourite sporting team?
 Port Adelaide.
Sporting team you despise?
 Australian cycling team.
Dream car?
 Holden Monaro.

Come the revolution, which celebrity would be first before the firing squad?
 Anthony Mundine.
Irritations?
 Adelaide Crows supporters.
What book are you reading now?
 Australian Turfgrass Management magazine.
Food you could not live without?
 Roast lamb.
Favourite golfer?
 The Shark.
Golf handicap?
 Not good.
Beer or Bundy?
 Beer.
Favourite movie?
 Mouse Hunt.
Name 3 CDs you could not live without.
 Elton John, Joe Cocker, The Wiggles. ♪



AGCSA COMING EVENTS: Mark these dates on your calendar now!

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 Club/Company: _____
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 City: _____ State: _____ Postcode: _____
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Please send completed form to: AGCSA, Suite 1, Monash Corporate Centre, 752 Blackburn Road, Clayton North Vic 3168. Ph: (03) 9548 8600 Fax: (03) 9548 8622 (Further details will be forwarded to interested persons upon registration).

The AGCSA will once again stage the Course Quality Official Program as part of the 2004 Australian Open. Expressions of interest are sought from interested individuals involved in the turf industry to partake in a round of golf with some of the world's leading players. Course Quality Officials walk inside "the ropes" and are responsible for bunker raking and divot repairs. The CQO program runs the entire length of the tournament and provides a fantastic learning environment for all levels of the turf industry.



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OBITUARY

Len McGrath

(16.6.1910 - 20.5.2004)



Len McGrath, co-founder of what is now Barmac Industries, who died in May, aged 93

Leonard Martin McGrath, a well-known pioneer of the professional turf industry, died in May after a short illness just before his 94th birthday.

Best known as the co-founder of Barnes McGrath Pty Ltd (now Barmac Industries Pty Ltd), McGrath was a leader in developing speciality chemical and fertiliser products for turf management in Australia.

In a time when greenkeepers used mainly agricultural fertilisers and pesticides to maintain their turf, McGrath developed specific and improved formulations recognising the increasing quest for high quality turf surfaces and the inadequacies of the currently available products. Brand names like Scuro, Rhysol and Autofert developed by McGrath are still widely used several decades later.

McGrath was also well known as a consultant to many golf courses and bowling clubs providing disease identification and soil testing services long before this was the norm. He also gave advice to United Nations organisations on issues of turf management.

Barmac Industries Pty Ltd is still a privately owned Australian company and is currently in its 50th year of business. Sadly, McGrath's wife of 68 years, Maureen, passed away one month after his death. They are survived by four children, 14 grandchildren and 9 great-grandchildren. ♣

SANDHURST IN RECORD BID

Recently appointed superintendent at the Sandhurst Golf Club Chris Grumelart must have the greens running beautifully if the feats of a handful of golfers are anything to go by.

The Peter Thomson designed course which opened in June this year and is located at Skye, south east of Melbourne, was the scene recently for what is thought to be a world record.

The club is in the middle of applying to the Guinness Book of Records after three members all scored a hole in one within 10 minutes of each other on Sunday, 29 August.

Sandhurst member Ivor Halford hit the first hole in one on the 178m 15th at 2.20pm. Don Curtain hit a hole in one on the 137m 13th hole and then witnessed Nicky Eller hit her hole in one on the 15th in the group following Halford.

It is expected that the world record application will take anywhere up to 10 weeks to assess before the club is informed. ♣

CRICKET VICTORIA APPOINTMENT

The Turfgrass Association of Australia (TGAA Vic) has been appointed as Cricket Victoria's turf wicket consultants for 2004/05.

TGAA (Vic) president Anthony Uhr-Henry said all members should be proud of the appointment as it was a reflection of the hard work and dedication members gave to presenting the best surfaces possible.

The advisory service is available for all Cricket Victoria affiliated cricket clubs and associations throughout Victoria. Curators, ground managers, clubs or associations experiencing problems or seeking advice or guidance in relation to the preparation and maintenance of turf wickets and grounds, can contact the TGAA's Simone Staples on (03) 9548 9327 or email enquiries to admin@tgaa.asn.au.

Cricket Victoria and the TGAA have enjoyed a close working relationship for many years, in particular their co-hosting of the annual Turf Wicket Seminar held in July every year. ♣



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Jacobsen's patented MagKnife technology

AT THE CUTTING EDGE

Jacobsen's new MagKnife technology is now available through Australian turf equipment distributors PowerTurf.

MagKnife is a revolutionary new system for attaching the bottom blade to a greens or fairway cylinder mower. Exclusively available from Jacobsen dealers, this new system uses powerful magnets with a force exceeding 19kgm together with special locating dowels to position the bottom blade firmly.

With no screws to remove, the time required to replace worn or damaged bottom blades is reduced from hours to minutes with this new patented technology. Traditionally, the bottom blade is held in position by up to 18 retaining screws which can be difficult to remove, particularly on older machines. When a new bottom blade is fitted using the traditional method, tightening the screws distorts the blade which then has to be ground true.

Using location dowels and a series of powerful natural magnets, MagKnife, the screwless bottom blade, is held firmly in position on the backing plate by a uniform pressure along its full length, eliminating the need to grind true using the 'old' system.

During laboratory and field tests in the US, a surprising benefit of the new design was discovered. Fairly substantial objects such as broken tees, twigs, small pebbles, discarded spikes and even coins passed between the cutting cylinder blades and the bottom blade without damage to either.

The magnets, with their powerful field, provide enough strength to hold the bottom blade securely to the frame, but allow it to 'give' when an object is encountered, allowing it to pass through harmlessly before snapping back into place.

A special patented removal tool is required to break the magnetic hold and, once done, the process of refitting can be achieved in seconds.

Apart from the ability to change the bottom blade quickly with the resultant saving in man-hours, additional benefits are:

- The use of thinner bottom blade for even lower height of cut;
- No bottom blade truing is required;
- Fewer cylinder blades and bottom blade damaged;
- Less frequent cylinder blade and bottom blade grinding.

PowerTurf's Australian distribution manager Greg Clark said: "We are convinced that MagKnife will revolutionise the maintenance of golf mowers. We have the exclusive use of this patented technology, which has been extensively tested and proven in the USA and European markets."

For more information contact your local Jacobsen Ransomes dealer, or Bill Stevens at PowerTurf on (03) 9335 6575 or mobile 0407 550 206.

TORO LAUNCHES T-VALUE

Toro's commercial division is increasing its presence in the used equipment market in Australia with the launch of its new business, T-Value.

T-Value recognises the need for quality second-hand equipment in a growing used equipment market. T-Value ensures Toro used equipment of quality and value, and all equipment sold under the T-Value banner will be factory checked, factory certified and backed by Toro's nationwide service reputation.

T-Value takes away the guess work when buying used equipment and has been designed to allow customers to purchase directly from the manufacturer, eliminating down time and problems caused by unreliable machines.

Toro has also announced the appointment of Paul Kruger to the role of re-marketing manager of T-Value. Paul's experience with Toro commercial equipment spans over 20 years.

DAEDONG'S COMPACT CK30

Daedong has added the CK30 32Hp compact tractor to its range. The latest addition will be available in both hydrostatic and synchro shuttle manual transmission variants.

Both models are powered by Daedong's well proven naturally aspirated 3A150 three cylinder diesel engine producing 32Hp @ 2800 rpm. The 3A150 produces maximum power at comparatively low rpm, which accounts for its low maintenance, long life and fuel-efficient reputation.

The hydrostatic model features three operating ranges with variable speeds from 0- 23km/h. Four wheel drive and cruise control, essential for repetitive tasking, are standard.

Manual variant features a 12 forward/12 reverse transmission split across three ranges, creep, low and high range 1.3-25km/h.

The synchro shuttle forward/reverser lever is located on the left hand side of the steering wheel, ideal for quick directional changes needed in mowing or front end loader applications.

Both models come standard with a 540 rpm rear PTO and mid-mount 2000 rpm PTO. Linkage and hydraulics are well specified for its class with 48 litres of oil flow available between a rear mount D/A valve and two joystick controlled mid-mount remotes.

Mechanical linkage is Cat 1 ball ends with a generous 1000kg rear lift capacity.

Differential lock, oil immersed disc brakes, mechanical 4WD and 58 degree hydrostatic power steering give them excellent manoeuvrability and safe handling characteristics.

The CK30 has a full lighting package, easy access uncluttered operator platform and low profile bonnet line for excellent all round visibility. Available options include light footprint turf tyres, factory front-end loader and side discharge mid mount mower.

For more information on the new CK30 models or any other Daedong model, phone David Richardson 0438 090 449 or on 0408 548 547.



Daedong's new compact CK30 tractor



Syngenta's new marketing manager for turf, Sam Hole

HOLE FILLS THE GAP

Sam Hole has been appointed as Syngenta's new marketing manager for turf, replacing Kate Dorahy who earlier this year moved to a new position in Syngenta's crop protection business.

Originally from the Snowy Mountains, Hole has a rural science degree from the University of New England. He has previously worked as an agronomist for IAMA in southeast Queensland and more recently in Sydney for Ruralco as a supplier business manager - crop protection.

Hole can be contacted on (02) 9688 0637 or 0437 043 580.

CHANGES AT DINT

DINT Australia has bolstered its contingent of staff with the appointment of Nathan Blake to its sales department. As well, Justin Treweek has been promoted to manager of warehousing and dispatch after spending the last three years servicing New South Wales. Treweek can be contacted on 0407 066 371, while Blake can be reached on 0410 654826.



Advantage DAKOTA

When it comes to topdressing the Dakota range of Turf Tenders have no equal. We call it the 'Dakota Advantage' and it enables clients to purchase a unit that can do everything, in any weather, with any material, all with the flick of a switch.



410

- Ranked 1 by independent AGCSA test
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- Heavy topdressing
- Fertiliser application
- 6 models available
- Will not bridge or clog
- 1 cubic metre capacity (app)



412

- Hydraulically powered
- Ideal for greens dusting
- Fairway topdressing
- Fully electric controller
- Walking beam suspension
- Fantastic for golf courses and contractors
- 2 cubic meter capacity (app)



420

- Hydraulically powered
- Side arm conveyor (opt)
- Box scraper (opt)
- Reversible floor
- Walking beam suspension
- Ideal for sportsgrounds and contractors
- 2 cubic meter capacity (app)



440

- Most versatile broad acre topdresser
- Options permanently mounted
- All options engaged by electric controller
- Ideal for application of wet or damp materials
- Calibrate from light to very heavy
- Safest large area topdresser
- 4 cubic meter capacity (app)



420 Heavy



410 Dusting



410 & 412 Controller



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AGCSA Member Benefits...



MEMBERSHIP BENEFITS

The AGCSA is committed to providing greater resources to enhance its leadership, unification and professional development of the Australian turfgrass industry and its members.

Membership of the AGCSA enables golf course superintendents as a collective unit to have their say on matters such as education, turf research, legislation and industry development.

So far during 2004, the AGCSA has undertaken a major redesign of its website for the use of all members of the turf industry.

The AGCSA believes that this medium is becoming a vital communication tool for the industry and something which members need to become familiar with.

The new-look website features a special 'Members Only' section, where special offers available only to AGCSA members will appear. Members will also be able to update their contact details in this area.

Now up and running, it is envisaged more services will be added in the coming months.

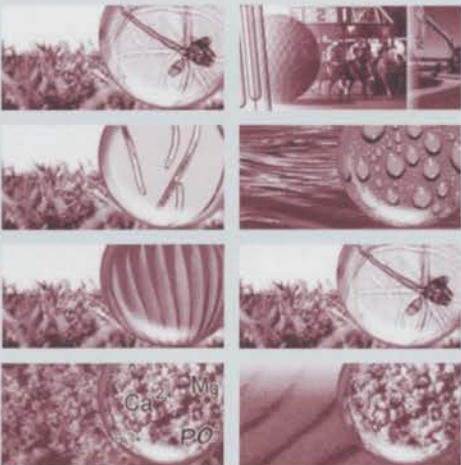
As well as the AGCSA website, there are many other benefits being an AGCSA member.

The Australian Golf Course Superintendents Association and Toro Australia recently signed a unique agreement to help foster the next generation of superintendents and turf managers.

Toro has put its name to the Next Generation membership program which will provide numerous incentives for student members of the AGCSA.

As it stands, the price of an AGCSA student membership is \$77 per annum. However, under the Next Generation membership scheme, existing and new student members of the association will only pay half that amount (\$38.50), with Toro footing the balance.

Signed in early July, the program is expected to develop a national turf management career day, access to overseas exchange programs, tournaments and regular educational tours.



MEMBER BENEFIT FOCUS Job Watch Alert Email Service



Ever since the launch of the new AGCSA website in March of this year, one of the most popular sections has without a doubt been the Job Watch service.

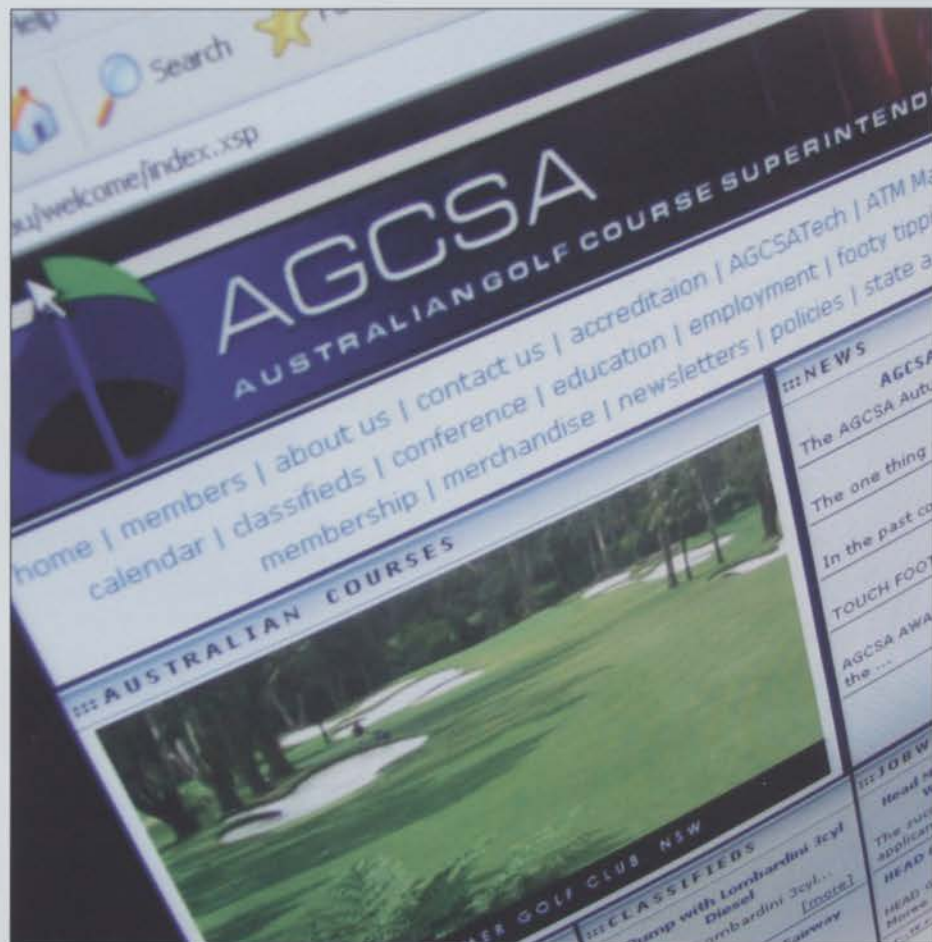
Here superintendents and turf managers can post job notices for positions vacant at their courses or turf production facilities, while those looking to further their careers can peruse the stack of jobs on offer around the country and overseas.

The Job Watch section has received the most hits and has become the most effective tool in searching for new employees and job opportunities. To prove that, the Job Watch section took 9700 hits in August alone, while over 1300 perused the jobs on offer.

Now, in a bid to further enhance this service for members, the AGCSA has come up with the Job Watch Alert email service.

Simply tell us you would like to receive the Job Watch Alert email service and any time a new position vacant is posted on the AGCSA website, we will send you an email alert. The alert will contain a brief description of the job and a link to the full advert on the AGCSA website.

If you would like to receive this service then send us your email address to: info@agcsa.com.au and you will be added to the Job Watch Alert database. 📧





Secure your career in the turf industry...

- enhance your job security • promote your professionalism
- receive peer support and free legal advice • gain access to a range of educational opportunities and AGCSA publications

Other AGCSA membership benefits include:

- Six editions of the bi-monthly AGCSA journal Australian Turfgrass Management magazine, the No.1 turf industry publication;
- AGCSA yearly wallplanner;
- AGCSA members hat;
- Access to the AGCSA 'Members Only' and Online Auction sections of the AGCSA website;
- Regular AGCSA ACTION Newsletter;
- Turf News email newsletter;
- Reduced registration fees to the AGCSA roving workshops and conferences;
- Receive member discounts on soil and water testing, disease diagnosis and other analytical services through AGCSATech;
- Discounted books from the AGCSA Bookshop;
- Discounted merchandise from the AGCSA website;
- Free legal service provided by Madgwicks Solicitors providing up to half an hour free legal advice on any subject;
- Regular mail-outs of positions vacant within the industry;
- Access to AGCSA Contracts of Employment;
- Regular opportunities to meet with your peers and the allied turf trades;
- Access to AGCSA Skills Recognition Program, Accreditation Program and AGCSA endorsed qualifications; and
- Opportunity to be involved in the Australian Open Course Quality Officials program.
- Clearmake Industries offers AGCSA members a 10 per cent discount on all products and services company-wide. Products available include oil water separators, water recycling plants, gross pollutant traps, rope mop oil skimmers and diversion and spill control valves.

If you have any questions or queries about becoming a member of the AGCSA, or about any of the listed membership benefits, please do not hesitate to contact Jane Phelan, membership services and administration co-ordinator, on (03) 9548 8600 or email info@agcsa.com.au.

You too can discover how the AGCSA can assist and make a difference in your future endeavours within the turf industry. 🏌️



Australian Golf Course Superintendents Association



AGCSATech

AGCSA Membership Classes

Golf Membership

Golf Course Superintendent.....	\$310
International Golf Course Superintendent.....	\$360
Assistant Golf Course Superintendent.....	\$277
Foreman/Ground Staff.....	\$130
Golf Course Maintenance Company.....	\$310
Consultant.....	\$310

Associate Membership

Sports Turf Manager.....	\$277
Company.....	\$277
Retired Member.....	\$130
Ground Staff - Non Golf.....	\$130

The Next Generation (Student Membership)

Golf and Non Golf.....	\$38.50
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Discount Sliding Scale for joining of two or more staff	5% discount = 2-3 staff 10% discount = 4-6 staff 15% discount = 7+ staff
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Membership Application Form

Surname: _____ First Name: _____

Preferred Mailing Address: _____

City/Suburb: _____ Postcode: _____

Position: _____

Club/Organisation: _____

Club Postal Address: _____

City/Suburb: _____ Postcode: _____

Phone: Work: _____ Home: _____

Mobile: _____ Fax: _____

Email: _____

Member Class: _____

Membership Payment

Membership payments for any of the above classes are to be sent to the AGCSA.

Please charge this purchase to my credit card account

Bankcard MasterCard Visa

Card Number: _____ Expiry Date: ____/____

Cardholder Name: _____

Address: _____

Signature: _____

Send completed application form and payment to:

AGCSA: Suite 1, Monash Corporate Centre, 752 Blackburn Rd, Clayton North, 3168, Vic
Phone: 03 9548 8600 Fax: 03 9548 8622 Email: info@agcsa.com.au

TURF INDUSTRY BOOKSHOP

A Field Guide to Australian Frogs	\$ 49.50	Native Plants of the Sydney District	\$ 88.00
A New Tree Biology & Dictionary (Two book set)	\$ 170.50	Natural Turf for Sport & Amenity	\$ 121.00
A Practical Guide to Ecological Management on the Golf Course	\$ 60.50	Noxious Weeds of Australia	\$ 220.00
An Illustrated Guide to Pruning	\$ 50.70	Nursery & Landscape Weed Control Manual	\$ 88.00
And If You Play Golf, You're My Friend	\$ 25.00	Organic Control of Weeds	\$ 17.60
Arboriculture - 3rd Edition	\$ 115.50	Picture Perfect	\$ 82.50
Australian Weed Control Handbook - 10th Edition	\$ 77.00	Positive Practice	\$ 55.00
Australian Native Plants	\$ 85.00	Practical Golf Course Maintenance	\$ 115.50
Best Golf Course Management Practices	\$ 209.00	Practical Greenkeeping	\$ 181.50
Biological Control of Weeds	\$ 44.00	Proceedings - 2002, 18th Australian Turfgrass Conference	\$ 20.00
Bird Conservation on Golf Courses	\$ 66.00	Proceedings - 2003, 19th Australian Turfgrass Conference	\$ 25.00
Color Atlas of Turfgrass Diseases	\$ 187.00	Rough Meditations (HB)	\$ 65.50
Color Atlas of Turfgrass Pests	\$ 187.00	Salt-Affected Turfgrass Sites - Assessment & Management	\$ 152.90
Compendium of Turfgrass Diseases	\$ 104.50	Sands for Sports Turf Construction & Maintenance	\$ 55.00
Confessions of a Chairman of Green	\$ 60.00	Seashore Paspalum	\$ 148.50
Confidential Guide to Golf Courses	\$ 110.00	Simplified Irrigation Design	\$ 99.00
Controlling Turfgrass Pests	\$ 220.00	Sports Fields	\$ 170.50
Creeping Bentgrass Management	\$ 127.05	Sportsturf Protection Manual - The Complete	
Cricket Grounds	\$ 132.00	Guide to all Turf Protection Products	\$ 220.00
Cricket Wickets - Science vs Fiction	\$ 78.00	Sports Turf & Amenity Grasses	\$ 85.00
Crop Weeds	\$ 71.50	Sports Turf - Science, Construction & Maintenance	\$ 169.50
CSIRO Handbook of Australian Weeds	\$ 55.00	Spotting Soil Salting	\$ 27.50
Destructive Turf Insect	\$ 155.00	Superintendents Handbook of Financial Management	\$ 88.00
Destructive Turfgrass Insect - Biology, Diagnosis & Pests	\$ 163.90	The Care of the Golf Course	\$ 104.50
Discovering Donald Ross	\$ 187.00	The Committed to Green Handbook for Golf Courses	\$ 33.00
Diseases of Turfgrasses	\$ 264.00	The Golden Age of Golf Design	\$ 148.50
Disease, Insect & Weed Control in Turf	\$ 65.45	The Golf Course - Planning, Design, Construction and Maintenance	\$ 148.50
Drainage for Sportsturf and Horticulture	\$ 38.50	The Good Doctor Returns	\$ 49.50
Ecological Golf Course Management	\$ 137.50	The Life & Work of Dr. Alster Mackenzie	\$ 135.00
Effluent Water for Turfgrass Irrigation (leaflet)	\$ 5.50	The Links	\$ 132.00
Encyclopaedia of Australian Plants Vol 1	\$ 99.00	The Mathematics of Turfgrass Management	\$ 88.00
Encyclopaedia of Australian Plants Vol 2	\$ 143.00	The Sand Putting Green - Construction & Management (leaflet)	\$ 19.80
Encyclopaedia of Australian Plants Vol 4	\$ 143.00	The Sandbelt	\$ 125.00
Encyclopaedia of Australian Plants Vol 5	\$ 143.00	The Spirit of St. Andrews	\$ 71.50
Encyclopaedia of Australian Plants Vol 6	\$ 143.00	The Turfgrass Disease Handbook	\$ 121.00
Encyclopaedia of Australian Plants Vol 7	\$ 143.00	Tree Basics	\$ 16.50
Encyclopaedia of Australian Plants Vol 8	\$ 143.00	Tree Maintenance - 7th Edition	\$ 115.50
Evaluating Turfgrass Sprinkler Irrigation Systems (leaflet)	\$ 8.80	Tree, Turf, Ornamental Pesticide Guide	\$ 66.00
Field Guide to Eucalyptus	\$ 99.00	Trees - Contributions to Modern Tree Physiology	\$ 275.00
Field Guide to Eucalyptus - Vol 2 - S.W. & S. Australia	\$ 104.50	Turf Irrigation Manual	\$ 137.50
Field Guide to Eucalyptus - Vol 3 N. Australia	\$ 170.50	Turf Management for Golf Courses	\$ 295.00
Field Guide to Weeds in Australia	\$ 82.50	Turf Spraying - A Practical Guide	\$ 27.50
Flora of NSW Volume 3	\$ 108.90	Turf Weeds and Their Control (HB)	\$ 185.90
Flora of NSW Volume 4	\$ 143.00	Turfgrass - Agronomy Monograph 32	\$ 132.00
For All Who Love The Game	\$ 25.00	Turfgrass - Science & Culture	\$ 176.00
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Golf Course Tree Management	\$ 108.90	Wastewater Reuse for Golf Course Irrigation	\$ 198.00
Golf Facility Planning	\$ 170.50	Waterplants in Australia	\$ 49.50
Golf Has Never Failed Me	\$ 66.00	Weeds an Illustrated Guide to Weeds of Australia	\$ 115.50
Grasses	\$ 24.20		
Grasses of New South Wales	\$ 39.60	VIDEO	
Grasses of Temperate Australia	\$ 59.95	Golf Course Maintenance for the Environment	
Growing Australian Native Plants from Seed	\$ 24.20	- A Strategic Approach	\$ 110.00
Growing Media for Ornamental Plants and Turf	\$ 55.00		
Guide to Golf Course Irrigation Systems Design & Drainage	\$ 170.50		
Handbook of IPM for Turf & Ornamentals	\$ 231.00		
Human Resource Management for Golf Course Superintendents	\$ 88.00		
International Turf Management Handbook	\$ 209.00		
IPM Handbook for Golf Courses	\$ 137.50		
Links Golf - The Inside Story	\$ 60.50		
Management of Native Vegetation on Golf Courses (leaflet)	\$ 20.00		
Management of Turfgrass Diseases	\$ 209.00		
Managing Bermudagrass Turf	\$ 154.00		
Managing Turfgrass Pests	\$ 209.00		
Managing Wildlife Habitat on Golf Courses	\$ 104.50		
Manual of Grasses	\$ 99.00		
Masters of the Links	\$ 60.50		
Modern Arboriculture	\$ 141.90		

Please note: All prices include GST.
Prices are subject to change without notice.

Native Plants of the Sydney District: An Identification Guide (Revised Edition)

By Alan Fairley and Philip Moore (Kangaroo Press, 2002)

First published in Australia back in 1989, this hard-cover, beautifully illustrated revised 2002 edition provides an ideal identification guide to the native plants of the Greater Sydney district, an area which extends from Newcastle to Nowra and west to the Great Dividing Range.

The Sydney district is one of the great wildflower regions in Australia with over 2000 native plant species

This book is an identification guide not just to flowering shrubs but to the full range of native plants in the region. Its coverage extends beyond the flora of the sandstone areas to include plants of the rainforests, fresh water and saline swamps, the drier western mountains and the ancient eroded rocks of fringe areas.

The main section consists of illustrations and descriptions of individual species. They are arranged in families. Family descriptions highlight similarities between genera in a family and the probable relationship of the family to others.

Generic and specific descriptions are designed to aid identification by pointing to

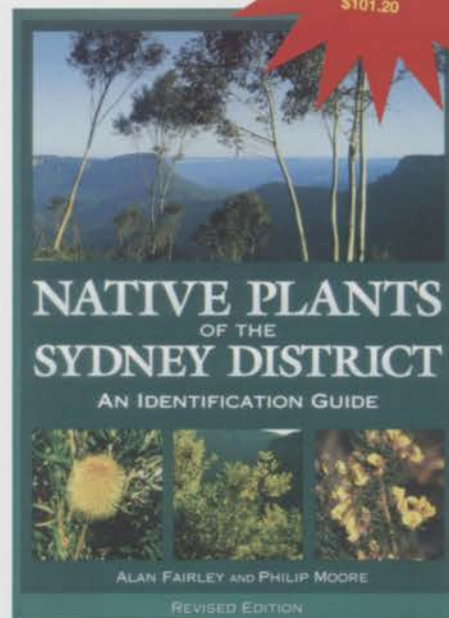
those characteristics that help distinguish one genus from another and one species from another.

Although botanical terms have been kept to a minimum, they cannot be avoided entirely, especially when describing ferns, eucalypts, sedges and grasses which need specific attention to details for which botanical terminology is the most efficient.

Simple identification keys are provided, together with a glossary and an index of names. The keys are based on readily observable features and require no special botanical training or knowledge.

Plant names follow the latest nomenclature. As revision of classification is an ongoing process, some name changes will inevitably occur. Previous names of recently revised genera are cross-referenced in the index.

Each species description is followed by notes on habitat, distribution and flowering time. Details of distribution beyond the Sydney district are also given. ■



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GCSAQ

With the last few months being fairly dry in Queensland there are many courses starting to look a bit on the dry side and in need of some decent rain.

In August we recorded 6mm, July 3mm and June 10mm, so the local weather experts are calling a long, dry summer on the way.

At Tewantin-Noosa we were lucky to get over 25mm in the first week of spring which started to green things up, but there has been no follow-up rain just yet. Meanwhile, places inland have been missing out altogether for the last few seasons so the news that Longreach had 80mm overnight recently brings some hope out West with the possibility of more on the way.

While winter is supposed to be a quiet time on the golf course with dormant grass allowing some time to tackle various construction and maintenance projects, there has been plenty of other activity to keep busy with this year.

The Country Turf Tour headed to the Maryborough area with visits to Hervey Bay Golf Club, Tin Can Bay Golf Club and the Maryborough Golf Club. With the help of Blacks Turf Equipment and Nuturf, our major sponsors of this event, the tour was once again a good opportunity to see the great work being done by superintendents and their staff at some hidden gems in the countryside.

The results produced by these guys with limited resources certainly had plenty of us taking a good look at our own operations to compare results.

The highlights of the tour were the courses themselves and the condition they were kept in, the excellent seafood feast on the Sunday night and the sightseeing tours of Maryborough at night and Hervey Bay by day that provoked plenty of oohing and ahing. Literally.

Some hidden talents were revealed on the tour by various members of the group - comedians, contortionists, even an impression of The Croc Hunter. But the line of the tour goes to a young lady who, when asked by a member of the late night patrol if she would like to dance, replied, "Come back when I've had 10 schooners". Golden.

While it was a privilege to be able to visit the golf courses, it was once again a great way to get some exchange of information and ideas happening on the bus and over a meal.

It also gives some of the younger members of our association the opportunity to get to know their fellow superintendents and tap into the years of experience stored away in the heads of the old foxes.

It was good to have Les Austin along on the tour again. Les has had some health problems in the past but has now gone bionic with his replacement hips, knees and elbows all working perfectly.

The Queensland Golf Industry Awards

dinner was held at the Hyatt Coolum Resort this year in conjunction with the 2004 Queensland Golf Industry Conference. Turf Apprentice of the Year was awarded to Simon Colahan of the Lakelands Golf Club while the Superintendents Environmental Award was presented to Scott McKay of North Lakes Golf Club. It has been a big year for Scotty after being runner-up for the AGCSA's Claude Crockford Environmental Award.

The Industry Appreciation Award went to Les Austin while the evergreen Garry Topp of the Twin Waters Resort won the Achievement Award. It was quite a surprise for Topp and it took a bit of effort to keep it that way until the presentation, but we figured if he knew he would be making a speech he might not turn up at all.

It was great to see these deserving winners awarded their trophies in front of a wide selection of the golf community and their efforts deserve more recognition than I can give here.

The conference itself was organised to give a forum to all the various golf associations in Queensland to discuss issues that will shape the future of golf in this State.

There was a wide cross section of industry people, golfers and interstate observers keen to participate in what may be the first of a number of meetings designed to canvass a wide range of topics.

The GCSAQ AGM was held at the Pacific Golf Club in August where host superintendent Graham Sims had the course in fine condition for the Toro golf championships.

In a fiery and sometimes violent meeting I stood down from the position of president to allow more talented members to rise up and realise their full and great potential.

Also standing down this year was our long serving secretary Ben Tilley, who took over the job from Greg Plummer many years ago, and Graham Sims our retiring golf captain.

Rodney Cook from The Grand Golf Club is the new association president and will rule the roost along with the following committee members:

Vice President: Barry Cox (*Ocean Shores*)
Secretary: Peter Lonergan (*Coolangatta-Tweed*)
Treasurer: Dave Morrison (*Hills Education*)
Newsletter: Darren Moore (*Lakelands*)
Education Officer: Scott McKay (*North Lakes*)
Memberships: Colin Caulfield (*Pine Rivers*)
Committee: Jason Foster (*Arundel Hills*)

Obviously a very talented team and one with a good mix of young bucks to get enthusiastic and some wise old heads to hasten slowly under the direction of master networker Rod Cook.

As I am standing down from the committee I wish the incoming members good luck and would like to thank all those who have served with me over the years for their efforts. Perhaps I will find something else to do with my time now. Best wishes.

Jon Penberthy,
Outgoing President, GCSAQ



GCSAWA

Welcome all to a new GCSAWA financial year. I would like to firstly sincerely thank our outgoing vice president Glenn Cross (*Mt Lawley Golf Club*) who has stepped down from the executive committee for hopefully only a short while.

Glenn has been paramount in the organisation and management of three GCSAWA southwest conferences as well as serving as an information conduit through TAFE WA. Glenn, you're a champion and we wish you all the best and hope you enjoy your break. Please don't get used to it.

Accordingly, I would like to welcome back after a year off, the ever splendid and cheerful Allan Devlin. As a past president Allan added considerably to many facets of our small but vibrant association and it is a great pleasure to have him back onboard.

At the recent AGM held at Margaret River the following committee was elected:

President: Brad Sofield (*Gosnells Golf Club*)
Vice President: Craig New (*Lakelands*)
Secretary: Darren Wilson (*Wembley*)
Treasurer: Jeff Lane (*Joondalup Golf Resort*)
Golf Secretary: Allan Devlin (*Secret Harbour*)
Co-opted Trade 'Lackey': Geoff Kirk (*Total Turf*)

This year's conference went off with an almighty bang quite literally with the team building exercise being an all out paintball war. Twenty-seven sharp shooters participated in the colourful event with 27,000 paint balls sprayed among the less-than-agile troops.

The 27-strong contingent was initially split into two teams, which then quickly split into 27 individual teams as soon as everyone locked and loaded; it's surprising how many so-called teammates had their backs and feet decorated while conducting a frontal assault or when standing around after the games had finished. Team building, my a***!

A special thanks to our national guest speaker, the indomitable Martyn Black, who as predicted performed magnificently and provided quality informative topics with a light-hearted approach - "Be gone you 'wog trees'".

The AGM threw up a number of surprises, none more so than the announcement that AGCSA Graduate of the Year and GCSAWA Best Indentured Apprentice winner Craig Webley (*Lakelands Country Club*) had, for his efforts, won a seven-week study tour at the Winter School for Turf Managers at the University of Massachusetts, USA.

Cameron Russell and Robert Rein form award sponsors Toro kindly flew over to WA to present this surprise to Craig as part of the AGM. Top marks to the management of Toro for their initiative and commitment to honouring the AGCSA's Graduate of the Year.

The AGM was also an ideal moment to bestow the honour of life member upon one of our state's longest serving and most professional superintendents.

Norm Ashlin, superintendent at Collier Park Golf Course, has been a familiar and proactive member of the WA and national turf industry for 34 years and has on many occasions presented papers to state and national colleagues. His career and life is too interesting to fit into this report so please read all about him in "Divots". I would like to say what an honour it is to have him as a life member of the GCSAWA and we hope to see him around for many years to come.

Coming up this year we have some exciting projects finalised and new ones underway.

The Waste Audit for Golf Clubs has been sent to all superintendents and general managers. Recently Steve Dargie, Idris Evans and myself met with an advisor for the DEP at our respective maintenance facilities to discuss golf course operations and the opportunity for the GCSAWA and the surrounding turf industry to formalise an Environmental Certification Program for Western Australia.

This advisor has undertaken similar ventures for the MTA and printing industry (Green Stamp Certification) and I believe it will fall into line and potentially complement the development of the AGCSA's Environmental Management Working Group which Trevor Strachan and myself are WA representatives.

John Forrest who has been a sensational help to the GCSAWA as a technical advisor, and all round good bloke has also nearly completed staff operation procedures for plant and equipment and the use of hazardous substances. We look forward to being able to provide this information to members in the near future.

Again, I look forward to a happy and productive year at the helm.

Brad Sofield,
President, GCSAWA



NSWGCSA

It's hard to believe that we are already into spring and almost three-quarters of the year is behind us.

Most of the Sydney Basin was the recipient of generous rainfall in the latter stages of August. The Sydney rainfall pattern remained basically unchanged to previous deluges with the bulk of the precipitation landing on the coastal regions.

This same scenario was played out throughout NSW with very little rainfall recorded over the Divide. Gary Dempsey at the New South Wales Golf Club remarked that he was the joyous beneficiary of over 100mm of rain in two days, though his main dam still remains one metre below the spillway. A stark reminder of just how parched our earth really is.

At present, there is a crescendo of mixed emotions in the turf maintenance industry as we lead into spring. Some superintendents that are blessed with an abundance of water and resources will be welcoming the sun back from the northern hemisphere, revelling in the

warmth of the fresh spring air and the new growth it will bring with it.

Others that rely on potable water as their only source of supply are simply cringing at the reality of the potentially destructive implications Category 3 water restrictions could have.

I honestly hope that the rain we so badly need falls over the catchment areas so these superintendents, their staff and families can breathe a huge sigh of relief.

At a grass roots level, several superintendents have voiced their concern regarding the introduction of a variety of so-called 'soft spikes' onto the general golfing market. A select range of these rubber/plastic spikes resemble the 'top of the range' rock climbing cleats designed to scale Kilimanjaro rather than the gentle grassy slopes of a suburban golf course.

This new generation of 'soft spike' has the capacity to destroy the unique uniformity and texture of a finely manicured putting surface we strive so hard to produce. This situation is obviously more evident when the bentgrass is in its infancy.

If any superintendents are encountering similar problems, please contact one of your NSWGCSA Board members or forward your comments to the editors of the NSWGCSA newsletter and Australian Turfgrass Management magazine.

The Department of Environment and Conservation, Peter Brown and Kate Lowe are wrapping up the preliminary work associated with the golf course environmental auditing process.

After a recent meeting with the DEP's Frouke De Rouver, Peter and Kate, they indicated they were extremely keen to follow up on the positive aspects this project has provided.

They would also like to mediate with superintendents involved in the program that have instigated a formal environmental policy process with their club committees. They have expressed their desire to visit golf clubs that have implemented policy that has actually produced physical outcomes at their workplace. If you are one of those people, please contact either Peter or Kate.

The next NSWGCSA education day to be held at Mona Vale Golf Club has been designed to arouse topical industry conversation. The Board is currently in the midst of putting together a panel of highly qualified experts consisting of a golf course designer, shaper, superintendent and professional golfer.

The aim is to quantify the purposes and realities of modern course construction from all given aspects. The panel will consist of two of the industry's most sought after and respected superintendents - John Odell (*Royal Sydney Golf Club*) and Mark Parker (*Concord Golf Club*).

Hopefully with this calibre of talent at our disposal, we can attract similar crowds that we have been experiencing at Merve's successful Cypress Lakes Day where 160 players attended. I'm sure the host superintendent at Mona Vale and current NSWGCSA Board member Andy

Hugill will keep the forum entertained from the floor with some pre-emptive curve balls he's already brandished about in colourful terms to a select few recipients by e-mail.

The NSWGCSA AGM is fast approaching which will complete the first term of three committee members. I'd like to take this opportunity to congratulate my Board - Richard Kirkby, Merve Hayward, Michael Bradbery, Scott Riley, Scott Lane, Guy Thomas, Andy Hugill, Darren Jones and Wayne Hawley - on an extremely successful and well structured first year together, with plenty more surprises in store over the next two years.

Craig Easton,
President, NSWGCSA.



NZGCSA

Hi from across The Ditch! With all the sporting events that have taken place recently around the world it is easy to believe why there have been a few bleary eyed superintendents getting about their duties. The Olympics have come and gone and the New Zealand public seems to be happy with the three gold and a couple of silvers. Compared to the Australian haul it seems light, I know.

The Tri Nations has come and gone also; I thought the days of the home team having the advantage in professional sport was gone but apparently not with all three teams winning both home games. Never mind, we still have the Bledisloe Cup safely wrapped up!

As for the Warriors, the least said the better!

The NZGCSA AGM was held in July with the following executive committee elected:

President: Brett Burgess (*Taupo Golf Club*)
Committee: Peter Boyd (*Pakuranga Golf Club, Auckland*), Ian Carruthers (*Corringa Country Club, Christchurch*), John Spraggs (*Hutt Golf Club, Wellington*), Kevin Sharrock (*Sherwood Park Golf Club, Northland*) and Layne Young (*North Shore Golf Club, Auckland*)

Over the winter months there have been two fine turf seminars. The first was held in the Wellington region at the Hutt Golf Club. The second was a month later in the South Island run by the Canterbury association.

Both seminars were run over two days with the target audience being set more at the course staff level. Both seminars were well received and it was great to see the organisers had hit their target audience with a lot of assistants and course staff in attendance.

Preparations for the 2005 New Zealand Sports Turf Conference is well in hand. The conference will start on 31 May in Christchurch and a top notch program is promised. See our website www.nzgcsa.org.nz for more details.

Brett Burgess,
President, NZGCSA



SAGCSA

With some decent rains behind us, the recent spell of sunshine has lifted most spirits throughout South Australian turf management circles.

Despite the good rains, water management issues are still at the forefront of our minds, as no doubt they are throughout the country. With this in mind, the focus of the annual Golf Management Australia/SAGCSA conference, held this year at the Renmark Country Club in the heart of the Riverland, was water and environmental management.

Guest speakers Darren Ferber of Aquatek and Terry Muir of EBS did an outstanding job of creating an awareness of the challenges and responsibilities that are in front of us as an industry and as individuals.

As with all challenges they can be viewed as opportunities to improve our management practices and spread the 'good news' about the practices we already have in place.

It was a confronting two days that has already stimulated a lot of action within those clubs that attended, with follow-up workshops and audits being organised.

As usual, the conference provided a great forum for managers and superintendents to mix and exchange thoughts and each year attendance grows.

Thanks go to Renmark Country Club for their hospitality, host superintendent Ken Mumme, Terry and Darren and to all delegates for their participation.

The Riverland was also the scene of our last SAGCSA meeting, with Barmera Country Club superintendent David Hastwell and his Berri Golf Club counterpart Kym Traeger sharing the host duties for the day.

Both clubs have their challenges in the declining golf market within the area, but David and Kym continue to do outstanding jobs in their increasingly diverse roles.

Dave apparently even had to resort to baking the cakes and biscuits for us (most said they tasted too good for that to be true). And Kym, well no-one believes anything he says anyway. (He did, however, provide industry icon John Cooper with a dose of altitude sickness at one stage!) Thanks to both guys for their time and effort in making the day a great success.

As mentioned, attention is focusing on water management issues and working with the relevant authorities to satisfy needs, and with spring now upon us, renovations are just around the corner.

So, busy times ahead, and we wish all members the best for this vital time of year.

Peter Harfield,
President, SAGCSA



TGAA (Vic)

Spring is well and truly here and our turf industry is gearing up for what will no doubt be a very busy spring/summer. I hope it goes well for all.

Since my last report, we held the 2004 AGM at Waverley Golf Club. Alan Leach (*Statewide Turf Services*) and Alan Stobbie (*McMahon's*) both stood down from the committee due to work commitments and on behalf of all, I would like to thank both for their wonderful and generous contribution to our association.

We are sorry to lose their experience, commitment and clarity from our committee, and wish them well in all their future endeavours. They have been replaced on the committee by Steve West (*Haileybury College*) and Ted Boltong (*Active Safety Supplies*) who we look forward to working with.

A reminder that the Sportsman's Lunch and Auction Day will be held on Wednesday, 27 October at the Manningham Club in Bulleen. Please contact Simone at the office to organise your bookings/tables. It promises to be a great day.

Nominations are also being accepted for the three-week England Study Tour for June/July 2005. This tour will take in an interesting list of venues and sporting events and should be of great benefit to all participants.

The cost will be about \$7000 and information is on our website www.tgaa.asn.au. Simone is taking bookings, but they do close soon. Please contact her to secure your seat.

Our TGAA(Vic) submission to the Victorian Government on the draft Permanent Water Conservation Measures is almost complete as I write. This has been a challenging and rewarding experience for all of the parties involved on behalf of our industry. It continues to bring various interests and viewpoints to the discussion table.

I am sure that our whole industry will emerge stronger as a result of this submission as it gives us the opportunity to present to government the positive outcomes that our industry constantly delivers to the broader community.

The upcoming TGAA(Vic) summer seminar will be held at the Geelong Botanic Gardens on Tuesday, 7 December. Once again, the activities sub committee is working very hard to ensure a quality day for all. You will see our flier out soon, but briefly the half-day seminar will be as follows:

- Presentations on strategies for surviving permanent water conservation measures;
- Communication strategies; better presentation and communication;
- Skilled Stadium - an overview of maintenance regimes;

This will be an excellent opportunity for us to engage our regional colleagues, particularly those in the Geelong and Western District, as well as the chance to catch up with the industry prior to Christmas. We look forward to seeing you all there.

In the meantime, here's hoping the grass is always greener on your side of the fence.

Jim Marchbank,
Vice president, TGAA (Vic)



TGAA (ACT & Surrounding Region)

Although Canberra and the region have been placed under Stage 3 water restrictions, good rainfalls experienced in early spring have put many turf managers throughout the Canberra area in good stead for the onset of a predictably hot and dry summer. Many outer areas surrounding Canberra unfortunately did not receive the levels of rainfall experienced in the urban areas.

There is a high expectation for local turf managers to reach the 40 per cent reduction mark demanded by government this summer. This has seen many turf managers, gardeners and horticulturists with limited access to irrigation water, working towards an early implementation of water management strategies suited to their situation.

Water is a valuable recourse, let us not be wasteful.

In local association news, the recent AGM held at Gungahlin Lakes Golf Club was an informative night enjoyed by all. Positions within the association have continued on into the next financial year. Many thanks to the committee members who continue to provide an invaluable service, and we welcome the new committee members.

Recent enthusiasm shown by turfies to be involved with the association has seen an increase in committee members nominated for positions every year. We have always encouraged new ideas and fresh blood into the association.

The recent feedback from those delegates and sponsors who attended the mid-year seminar has been positive and constructive. We are taking any ideas for improvement on board, so please don't hesitate to contact us.

Best of luck to all over the summer months and keep an eye out for the latest up to date news and information around the district.

Till next time, agrostologists.

Justin A K Haslam
(Committee, TGAA ACT & Surrounding Regions)



TGAA NSW

The past few months have been busy for the TGAA NSW and things aren't about to slow down.

The Sydney Showgrounds was the venue for our annual turfgrass seminar and tradeshow on 11 August. The day was very successful and we were pleased with the attendance of 185 people who were presented with a wide range of topics and some great presentations. Not only did we have many familiar faces in the audience but lots of new people.

The day started with Jyri Kaapro of Bayer Environmental Science covering herbicides for sportsfields and specifically the new product Destiny. Mark Parker of Concord Golf Club provided a great insight into golf course tournament preparations.

The topic of renovation equipment was covered by Michael Pauna of Turf Link Australia, while John Lloyd from Parliament House in

Canberra discussed oversowing and maintenance of cool-season grasses.

We were pleased to have a guest speaker from the USA, Professor James Reinert, whose expertise was on insect pest management in turf. Dr Paul Jonson of the University of Technology in Sydney provided an update on the state of law and liability and how it can affect the turf manager.

Special guest speaker on the day was former cricket legend Greg Matthews who not only entertained the crowd with some great stories but also showed his appreciation of the work that turf managers throughout Australia do to provide such great sportsfields.

Thirty-three companies were represented at the tradeshow. This support was fantastic and provided everyone a chance to view the products and machinery in a relaxed environment away from work pressures.

The TGAA NSW held its annual general meeting during the event and I am pleased to be taking on the role of president once again. I have the support of a great committee whose job it is now to continue the development of TGAA NSW.

Our biggest event of the year is fast approaching - the Sportsman's Charity Luncheon. This year's event is lining up to be bigger and better than 2003. MC for the day is Daryl Brohman and guest speakers are Doug Walters and Tom Raudonikis and back by popular demand, comedian Mick Meredith.

The most rewarding part of this event is being able to raise funds for worthy charities and last year's event allowed us to grant a wish for a little boy suffering Leukaemia, sending him and his family on a holiday to Queensland.

This year we will once again donate to the Starlight Children's Foundation. Tickets will sell fast so if you haven't already booked in call us or get on to our website to organise your seat. For all the details on the Sportsman's Luncheon go to our website www.tgaa.asn.au or email tgaansw@bigpond.com.au or ph: 0408 441119.

Finally, it was great to see Australia so successful in the recent 2004 Olympic Games. Take pride in the fact that a lot of those Olympians and many future ones rely on us to provide great sporting fields for their training and performances.

Graeme Logan,
President, TGAA NSW



The VGA recently held its AGM in Melbourne. At the meeting two greenkeepers shared the Greenkeeper of the Year Award.

Congratulations go to Andrew Kent (*Traralgon Bowling Club*) and Tom Sculley (*Ballarat East Bowling Club*). This is the first time this award has had two winners.

Also at the AGM, Allan Elliot from the Myrtleford Bowling Club won the Distinguished



VGA president Doug Agnew (second from left) with VGA award winners Allan Elliott (Distinguished Services Award), Andrew Kent and Tom Sculley (Greenkeeper of the Year joint winners)

Service Award for his hard work and generous contributions over the years.

Duncan Knox was appointed a life member of the VGA and was thanked by the members at the AGM for his hard work over the years. He will be replaced by Andrew Kent as secretary.

The AGM saw the appointment of new committee members Greg Dunn (*North Albury Sports Club*), Andrew Ross (*Whittlesea Bowling Club*) and past Greenkeeper of the Year recipient Bill Hampshire (*Queenscliff Bowling Club*).

Doug Agnew,
President, VGA



VGCSA

Spring has arrived in Victoria heralding the usual golf club issues of rapidly growing roughs, persistent *Poa annua* and the scheduling of construction projects that can be a nightmare if the weather gods are not cooperative.

Our water catchments have improved considerably due to good downfalls in June and August (RGC 120mm) but we're not out of the woods yet. Many are hoping for a typical season for the remainder of the year to enable water restrictions to be lightened for the peak period.

On matters relating to the AGCSA, I would like to commend the editor of *Australian Turfgrass Management* magazine for the cover and corresponding articles highlighted in the previous edition (*Pioneers of a Profession: ATM Vol 6.4*).

For those of us who know something of those gentlemen and their outstanding contributions to the cause of refined turf care, it was wonderful to refresh the memory. Their outstanding performances are still having an effect today and should never be forgotten.

The VGCSA is enjoying a quieter time at the moment as the new committee settles in. The annual country meeting was held in the Gippsland region this year with a first-time visit to Bairnsdale hosted by superintendent Noel Williamson.

It was a superb Sunday and Monday with most of the city superintendents thoroughly impressed with Noel's clean Santa ana fairways and tight, firm *Poa* greens.

I am always amazed to see what can be achieved with limited funds, when there is knowledge backed up with vast experience and a sound resolve. Noel, who has been there for 30 years, and his two-man team, who have also been at the course for 15 years, should be proud of what they are achieving.

Thanks go to Peter Carr from the Department of Primary Industries for his enlightened presentation on all things relating to chemical applications. In this ever-growing climate of legislation and litigation, too much information on this subject is never enough.

Grundfos Pumps and in particular Kevin Stiles and Andrew Bini must also be commended for their contribution to the morning session. It is my understanding that many in the room followed them up as result of their presentation.

The next VGCSA meeting is in October at the Waverley Golf Club, hosted by Mark Schroder. Textron will provide the morning sessions while WorkSafe Victoria will give an overview on important issues around golf course maintenance facilities.

An added interest will be Waverley's current situation in relation to its proposed move to another site, a project that has hit numerous snags since it was first discussed over three years ago.

Michael Picken,
President, VGCSA



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