

AUSTRALIAN

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MANAGEMENT

Legends Honoured

*Claude Crockford
Mick and Vernon Morcom
Rupert Walkerden
George Rüb*



→ **Meeting of Minds**

*Full 20th Australian Turfgrass
Conference Review*

→ **Around the Traps**

Queensland Projects Update

→ **2004 AGCSA
Award Winners**

- Ray Keane
- Peter Schumacher
- David Warwick
- Craig Webley



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Published by:**

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Superintendents Association
ABN 96 053 205 888

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The AGCSA bestowed posthumously its Distinguished Service Award on five turf industry icons at the 20th Australian Turfgrass Conference. The gang of five included Claude Crockford (*central image*), Mick and Vernon Morcom (*to Crockford's right*) Rube Walkerden (*to Crockford's left*) and George Rüb (*below Walkerden*).
Cover montage: *Andy Cumming*

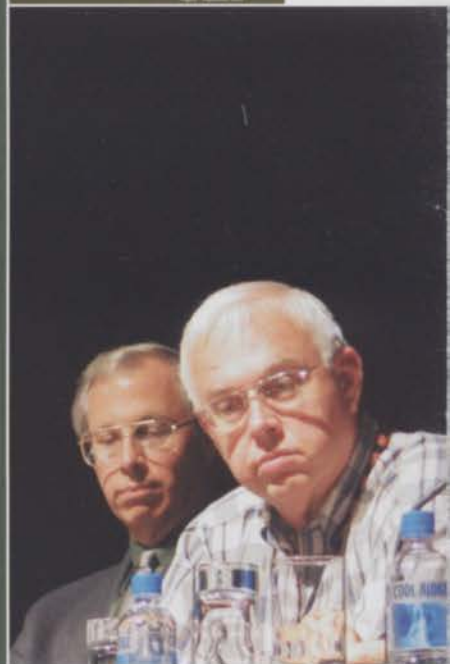
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In a fitting tribute, five turf industry legends - Claude Crockford, Mick and Vernon Morcom, Rube Walkerden and George Rüb - were bestowed the AGCSA Distinguished Service Award posthumously at the Melbourne conference. ATM, through the eloquent words of Graeme Grant and Doug Robinson, pays homage to these undoubted pioneers of the superintendent profession.

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BRETT ROBINSON
EDITOR

Pioneering Spirit

Every industry has its pioneers, those leading lights who above all others leave an indelible mark and change the face and direction of a profession. The golf course turf management industry is no exception and in this edition of Australian Turfgrass Management magazine we pay homage to the pioneering forebears of the superintendent trade.

For those not at the recent 20th Australian Turfgrass Conference in Melbourne, the AGCSA Board took the unprecedented step of honouring five of the industry's pioneers by bestowing the Distinguished Service Award posthumously. The gang of five need little introduction - Claude Crockford, Mick and Vernon Morcom, George Rüb and Rupert 'Rube' Walkerden.

The legacy left by these gentlemen has been profound and through their enduring service they helped boost the perception of the profession both on and off the course. It is therefore more than appropriate that the profession honour these men in a way that others who have benefited from their wonderful skills never have.

Listening to the recollections of Graeme Grant and Doug Robinson about these men at the conference was intriguing, particularly when Grant recalled how Vernon Morcom, head greenkeeper at Melbourne's famous Kingston Heath Golf Club, was feared dead after battling a bushfire that swept through the course in 1944.

Death notices appeared in local papers and it wasn't until three days later that a slightly singed Morcom stumbled from the shed where he had spent the time attempting to save his beloved course. Gives new meaning to the word devotion, doesn't it.

It was also fitting that during conference week one of the turf tours took in Royal Melbourne Golf Club, home for the best part of 70 years during the 20th Century to Mick Morcom and Crockford. For myself, it was my first visit to the Australia's top ranked course and it was clearly evident the legacy of Morcom and Crockford is preserved today in the efforts and enthusiasm of current superintendent Jim Porter and, to quote Jim Moore, "Old Tom Morris himself", assistant Michael Love.

Starting on page six of this edition, ATM pays tribute to the unsung heroes honoured posthumously at the conference. This kicks off a full review of the Melbourne conference, including a special spread on this year's AGCSA Award winners which included Victorian stalwart Ray Keane.

On the back of Jim Moore's visit Tech Talk looks at the recent changes made to the USGA greens construction specifications, while newly elected AGCSA president Jeff Gambin puts pen to paper to regale us with tales of his trip to the United States earlier this year.

Also, I am pleased to announce that after discussions with New Zealand Golf Course Superintendents Association president Brad Burgess, our Kiwi cousins will be supplying a regular column in the state presidents section.

Enjoy the magazine.

Brett Robinson

Contributors 6.4...

Brad Burgess (Taupo Golf Club, NZ)
Craig Easton (Camarvon Golf Club)
Peter Frewin (Barwon Heads Golf Club)
Jeff Gambin (Gold Coast Burleigh Golf Club)
Graeme Grant (ex-Kingston Heath Golf Club)
Peter Harfield (Blackwood Golf Club)
Justin Haslam (TGAA ACT)
Chris Hay (Kingston Beach Golf Club)
Craig Henderson (QDPI)
Graeme Logan (TGAA NSW)
Reid Maier (University of Kentucky, USA)
Jim Marchbank (TGAA Vic)

Rob Millington (The Vines Golf Club of Reynella)
Jim Moore (USGA, USA)
John Neylan (AGCSATech)
Andrew Peart (AGCSATech)
Jon Penberthy (Tewantin Noosa Golf Club)
Matt Perkins (VGA)
Scott Petersen (AGCSA)
Michael Picken (Riversdale Golf Club)
Dr. D Potter (University of Kentucky, USA)
Steven Potts (AGCSA)
Doug Robinson (Pacific Golf Operations)
Brad Sofield (Gosnells Golf Club)

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Earlier this year, newly elected AGCSA president Jeff Gambin visited America for the GCSAA tradeshow. As well as attending this major event, he had the opportunity to visit a number of golf courses including Farm Links, a well-known research facility that continually trials new products.

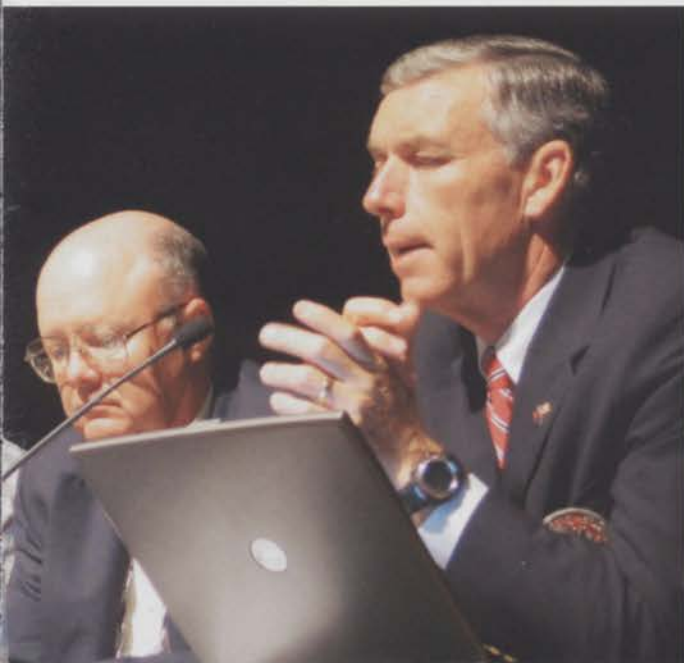
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Foreword Thinking

A warm welcome to the first instalment of Foreword Thinking, which from this edition on replaces the President's Pen. Through this column we will aim to outline the operational issues the Australian Golf Course Superintendents Association is facing and progress made in relation to the strategic plan.

With over 840 delegates, a 7500m² tradeshow and in excess of 1000 tradeshow day visitors, the 2004 20th Australian Turfgrass Conference was clearly the largest turfgrass gathering ever held in the Southern Hemisphere. A full report on the week is included in this edition of ATM, and I would like to sincerely thank all delegates, speakers, exhibitors and associations for a truly memorable week.

During the conference it was announced that the 2005 21st Australian Turfgrass Conference would be held from June 6-9 in Moama. This regional focus is aimed at making the conference accessible for all turf managers and we encourage all to attend.

It is hoped by staging the conference at a feasible country location this will encourage particularly the smaller clubs to send higher numbers of delegates due to the more cost effective rate.

The 2004 AGM saw a changing of the guard with Mark Couchman (Cromer Golf Club) stepping down after seven dedicated years of service. I would like to take this opportunity to thank Mark for his valuable contribution to the Board.

Elected unopposed to the role of AGCSA president was Jeff Gambin (Gold Coast Burleigh Golf Club). Jeff has been an AGCSA Board member for the past five years and is looking forward to the challenges that lie ahead. Tewanin-Noosa Golf Club superintendent Jon Penberthy was also elected as a Board director.

One of the key issues the AGCSA has been addressing over the past 12 months is a consistent national education program. I am pleased to report that as part of the 2004 education forum, the National Turfgrass Education Committee officially launched the Certificate III Horticulture Delivery and Assessment Guides.

This has been a great achievement by the working group and it is a tribute to their passion and professionalism that they have been able to achieve so much in the first 12 months.

Looking forward, the number one issue facing the industry is the environment. Unfortunately the industry's perception in the general public's eye is not the reality, and as a relative newcomer to the turf industry I can understand why there is this misunderstanding.

I believe, and many will agree, that the golf industry has a very good story to tell but we have been very poor at communicating the positive stories. A new approach is required if we are going to influence the decision-makers and raise the awareness of the general public so that the golf industry is seen, quite deservedly, as environmental custodians rather than environmental vandals.



AGCSA chief executive, Steven Potts

During this year's conference, the AGCSA, in conjunction with the AGU, held the first meeting of the Environmental Management Working Group. This group is charged with developing a long term strategy that not only increases environmental management within the industry, but boosts awareness of the golfing public and the general public about the advances made on golf courses and the positive environmental impacts.

This working group includes representation from all areas of golf and I look forward to reporting on their achievements over the coming 12 months.

Enjoy the magazine. ♣

Steven Potts,
Chief Executive Officer, AGCSA

AGCSA Student Membership

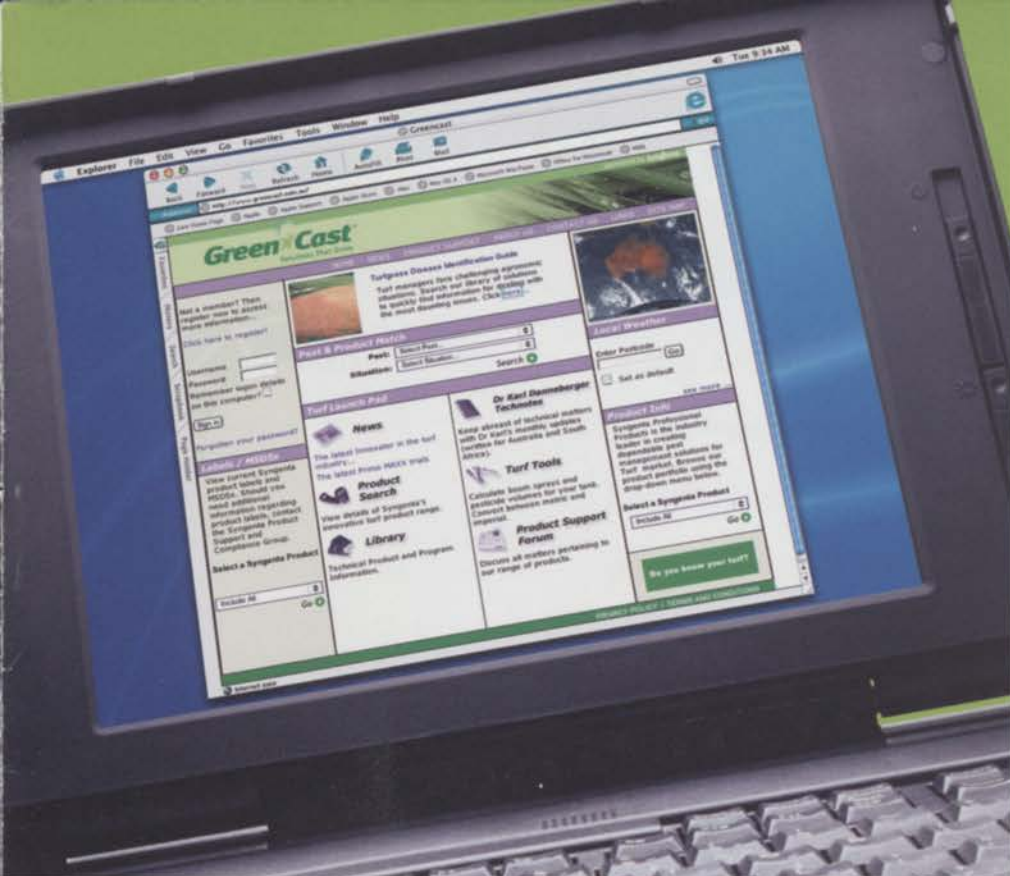
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Pioneers of a Profession

At the 20th Australian Turfgrass Conference, the AGCSA Board bestowed the prestigious Distinguished Service Award posthumously to five turf industry legends – Claude Crockford, Mick and Vernon Morcom, Rupert 'Rube' Walkerden and George Rüb. ATM, through the words of Graeme Grant and Doug Robinson, pays tribute to these pioneers of a profession.



Claude Crockford: "An uncommon genius." Peter Thomson

CLAUDE CROCKFORD

Course Manager, Royal Melbourne Golf Club
1937-1975. (By Graeme Grant)

Claude Crockford was the undisputed doyen in his chosen field, and I was privileged enough to work under him and retain his friendship from 1967 until he died in 1995.

Crockford was trained as an architect but found the outdoor life on a golf course more to his liking. He was quoted as saying, "All I wanted to do when I started was architecture. But things were a bit tough at the time in our family so I got this job at Yarra Bend. I rather liked the idea after that. It was a good life – being outdoors and developing things."

Upon his retirement he wrote, "It's incredible, it's all gone so quickly. I have countless wonderful memories to take with me.", such was the satisfaction and affection he had for his work.

An indication of his impact on the profession can be gauged by various pieces appearing in the press both during and after his time as course manager at Royal Melbourne Golf Club.

Upon his death in 1995, five-times British Open champion Peter Thomson wrote, "The Royal Melbourne turf is his Shrine of Remembrance – a tribute to an uncommon genius."

Such tributes to Crockford are commonplace. In the opening pages of Claude Crockford's book 'The Complete Golf Course – Turf and Design' published in 1993, the likes of Thomson, former Royal Melbourne captain and president George Burgess and Don Lawrence wax lyrical about the genius that was Crockford.

Burgess wrote that during his time at the club he was "able to properly appreciate (Crockford's) unrivalled skill in maintaining the character and condition of the two courses...and it would be true to say that his reputation extended far beyond Australia."

Thomson is quoted as saying that the famous Royal Melbourne greens, their texture, speed and true nature, were so "because of the skill and art of one man - Claude Crockford". Thomson goes on to say: "(During his 40 years at Royal Melbourne) through flood, frosts and devastating droughts, those greens were never less than perfect. The fairways may have suffered stresses and strains. His greens never."

Lawrence refers to Crockford as "a gold nugget – rare and precious", a man who developed the "reputation of Australia's foremost golf course superintendent – the doyen of them all" and who "effectively rewrote the manual on golf course care and maintenance".

Crockford commanded the respect of both golfers and his peers because of the immaculate pure bentgrass greens he nurtured. Golf Digest referred to them around the time of the 1972 World Cup as the best putting surfaces in the world.

When talking about the greens, Crockford said, "I always thought the speed of the greens was essential for an international tournament. Players had to have that finesse of touch to handle them."

At Royal Melbourne the greens appeared brown not green. They were firm, fast, true and received only a bare minimum of fertiliser. Just as importantly this hungry turf was *Poa* free.

The drought in Melbourne during 1967/68, more than at any other time, brought Crockford's skill to the fore. Royal Melbourne had only town water in those days and irrigation was restricted to the greens using hand held hoses for half an hour per day during the worst of the drought.

Apart from some of the better couch varieties in the fairways, the only turf to survive this harsh period was that on the greens. But this was unrecognisable as it was allowed to grow to a height that resembled green surrounds. If the greens were not pure bentgrass it is doubtful they would have survived.

Some seven months after the drought broke, Royal Melbourne hosted the Eisenhower Trophy. It was testimony to Crockford's turf nurturing skills that he was able to literally bring the course back from the dead to host the event.

Apart from the drought, Crockford was to endure further trauma later in 1968. Some three to four weeks prior to the tournament a freak accident occurred. OH&S would have had a field day, but in that era if a recoil starter on a machine broke you simply substituted it with a piece of rope.

In this case a piece of electric flex was used to try and start the mower. As Crockford pulled,

the knot slipped and flicked up into his right eye. He was admitted to hospital and spent the next month there but was never to regain the sight in this eye.

The dedication of his staff and their respect for him meant the course preparation went ahead as he would have expected, with the tournament a success.

Although Royal Melbourne was his first love and turf management his forte, Crockford was sought after for his design expertise and was a contemporary of Vernon Morcom.

Crockford used his design skills to great effect at Royal Melbourne and although the credit for changes to the 7th, 11th and 12th West are accorded to Ivo Whitton and Alex Russell, Crockford was the one to implement, as he put it, "their sketchy ideas".

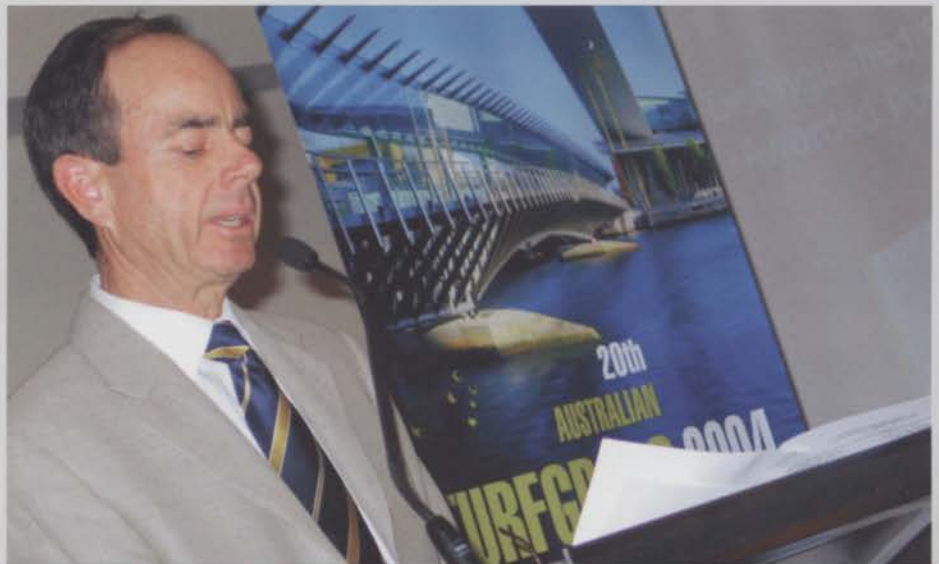
Few would be aware that the contours of the MacKenzie greens were altered substantially by Crockford to effect proper surface drainage.

I will remember the pride he took in the greens' ability to shed excess water quickly after storms and become playable almost immediately the rain had stopped.

He showed great annoyance that the organising committee of the 1972 World Cup did not recognise this fact, choosing to cancel the second day's play before observing the drainage qualities of the greens.

Royal Melbourne was famed for the greens but there was much more to Crockford's course maintenance. He understood golf, its traditions and spirit. He was a naturalist with a unique appreciation of the heathland flora once so abundant around Port Phillip Bay.

At a time when others were despoiling the indigenous scrub on their courses, turning even remote areas of the golf course into grasslands that required constant mowing, he was acting to preserve the dwarf indigenous plants in the carry hazards between the tees and fairways.



Graeme Grant recalls memories of Claude Crockford and the Morcoms

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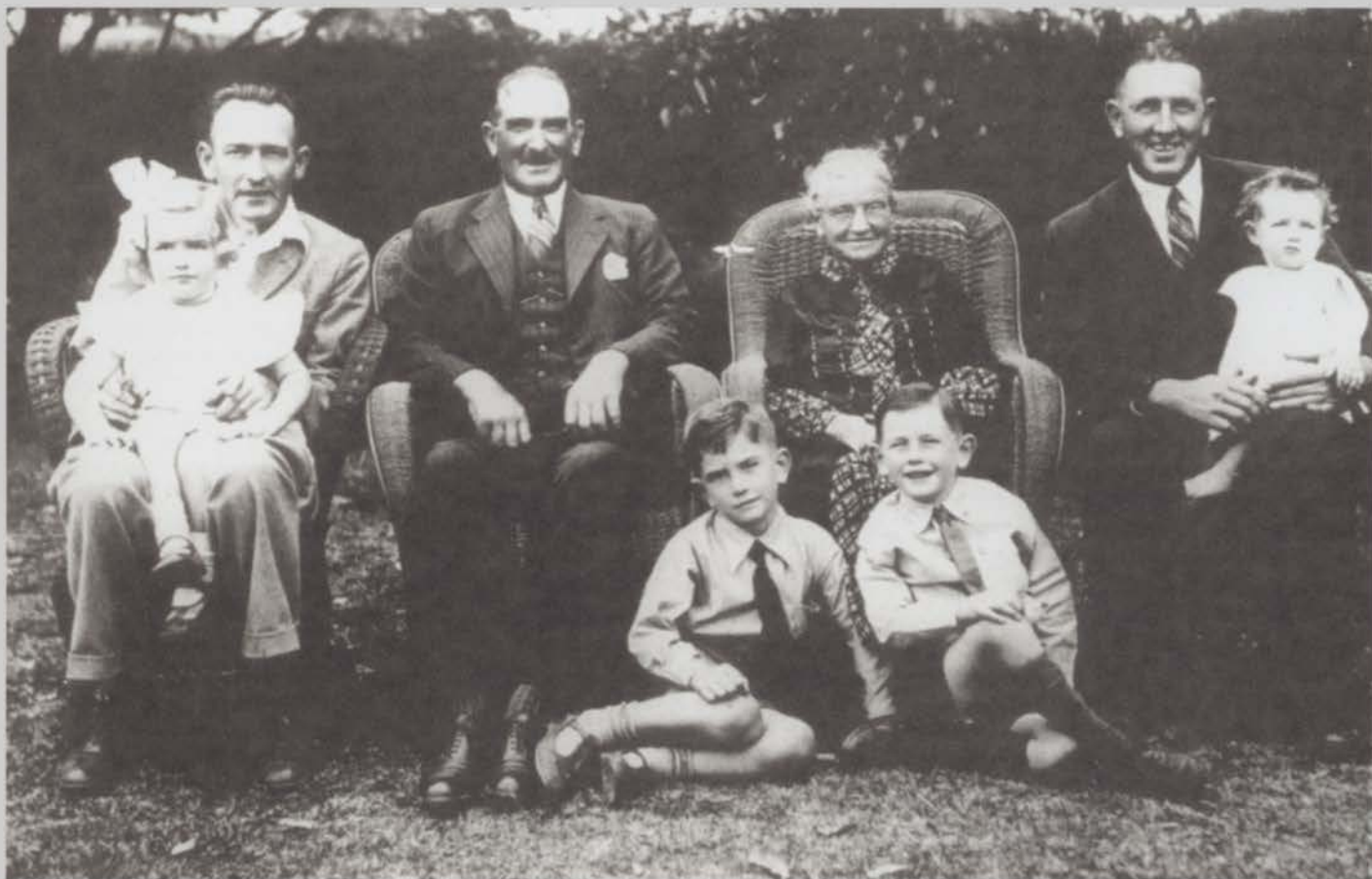
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Pioneers of a Profession



The Morcom family with Mick, second from left, and Vernon, right

The fact that substantial areas of the heathland survive today providing a wonderful contrast to the manicured grasses, as well as a link with the way the landscape was before urbanisation, is a legacy recognised in the AGCSA's Claude Crockford Environmental Award.

Crockford always wore a collar and tie to work, which was both a sign of his desire to raise the perception of the golf course 'curator' and of the era he came through in golf.

I believe he felt more comfortable when dealing with members and administrators when dressed as they were.

The term used to describe his position - course manager - was the impetus for the title of the turf manager of today and a means of gaining respect for the profession.

Curator was the accepted title then and before that head greenkeeper. It was obvious he felt more a manager than a keeper of the green.

The legacy left by Crockford has been profound and has benefited many more golfers than he could ever have imagined.

Course management has progressed in many areas during the past 30 years, but there have never been purer putting surfaces than those prepared by Claude Crockford at Royal Melbourne.

THE MORCOM FAMILY

(By Graeme Grant)

While Melbourne was home to one of the turf industry's great individuals, it was also home to "one of the country's most remarkable golfing families, the Morcoms." (Mike Clayton, *A Round Forever*, 2001). Mick and Vernon Morcom had a huge impact on not only the profession, but golf throughout Australia.

MICK MORCOM

Head Greenkeeper, Royal Melbourne Golf Club 1905-1937

The words used by Alister MacKenzie are probably better than any to give an insight into the skills of Mick Morcom.

In relation to Royal Melbourne, MacKenzie wrote: "I have suggested to the Council of the Club that the work of construction be left entirely in the hands of the Greenkeeper, M. A. Morcom. Morcom is, I think, the most intelligent Greenkeeper I have come in contact with in this or any other country and understands my plans thoroughly."

On Kingston Heath, MacKenzie had this to say about Morcom: "The construction work which has been carried out by Morcom is in many respects better than I have seen on any other golf course in Britain or Australia."

And this upon MacKenzie's return to Britain, penned in *Golf Illustrated*: "The Royal Melbourne Golf Club has the good fortune to have the best Greenkeeper I have come across in Britain, America or Australia - a man named Morcom - and I managed to persuade most of the golf clubs in Australia to secure his services for the purpose of helping them in their construction work.

"Morcom has not only read, but has studied every book he could possibly get hold of on the subject of golf course construction and greenkeeping, and has been in constant touch with the Green Section of the USGA, who have done so much good in greenkeeping."

A paragraph from 'A Centenary History - Royal Melbourne Golf Club' reads: "It is pertinent that MacKenzie mentions construction as well as greenkeeping when referring to Morcom. After 60 years it is not easy to assess the relative contributions of MacKenzie, Russell and Morcom in the design and construction of the West Course or Russell and Morcom with the East Course, but it should be borne in mind that a world famous golf course architect and an Australian (golf) champion would find it much easier to be acknowledged than a club employee."

Many would say that Mick had the primary influence on the Royal Melbourne courses. A study of MacKenzie's work throughout the world shows his bunkers have a slightly different style dependent upon who constructed the course. Alex Russell did work in other places such as Lake Karingup but none of this has the style of Royal Melbourne.

Greenkeeping references to Mick are not as common as those on construction but suffice to say Claude Crockford learnt his craft from him.

VERNON MORCOM

Head Greenkeeper, Kingston Heath Golf Club
1928-1967

Son of Mick, Vernon Morcom was head greenkeeper at Kingston Heath between 1928 and 1967.

In 1982, I was appointed as superintendent at Kingston Heath and almost immediately I found an urge to find out as much as I could about the history of the course. One of the first things I did was to read the published history of the club, 'The Test of Time', where references to MacKenzie and Dan Souter were common but scarce where the Morcoms were concerned.

As well as reading the history I sought out aerial photos going back to 1931. They revealed only 53 bunkers which would have been essentially as MacKenzie's plans dictated.

What the later aerials portrayed was the vast difference between the original bunkering and that of 15 years later - 53 bunkers had become more than 130. The position of a few had changed dramatically, but most remained in the original locations.

This was where Vernon's work is most obvious. I am convinced that his eye for harmonious balance within the landscape caused a rethink of the style of the bold expansive original bunkering.

At Royal Melbourne the large expanses of sand blended well into the wide fairways and

rather bold contours. Kingston Heath was another story where the flatter ground and narrower fairways called for less obtrusive bunkers. So he set about turning one bunker into as many as five or six and developing what has made Kingston Heath so famous.

These old aerial photographs changed my preconceived views on who was really responsible for the design and construction of Kingston Heath, but up until the early 1990's my protestations of missing credits fell on deaf ears. Photos of Dan Souter and Alister MacKenzie took pride of place in the clubhouse but nothing was to be seen of Vernon or his father.

People seemed more receptive to what I was saying, following my discovery in 1995 of a report to the club by MacKenzie, his account dated November 1926, and an original letter from Mick Morcom to the club.

That letter confirmed Vernon would undertake the work of bunkering the course and making the new 15th hole, while Mick would "direct the scheme of bunkering and give general supervision for a fee of one hundred and fifty pounds". The dates confirmed that MacKenzie took no part in the construction of the bunkers or the reconstruction of the 15th.

Vernon's devotion to his beloved Kingston Heath is graphically indicated in this extract from John Scarth's biography on the Morcoms, 'A Round Forever'.

"On January 14, 1944 Kingston Heath Golf Club faced what appeared to be a major disaster. A large bushfire spread throughout most of the course, almost reaching the clubhouse when a wind change saved the building. Vern spent two days fighting the fires and because he did not contact anyone - family, friends, staff or management - it was feared he had lost his life endeavouring to save his beloved golf course. Reports appeared in the local newspaper of his death. On the third day Vern appeared from his workshop, where he

had stayed during this time, dirty, slightly burnt, hungry and thirsty but alive.

Mike Clayton, in his foreword in the same book sums up: "Vern Morcom was clearly one of the most highly regarded men in Australia's golfing community.

"Doug Courtney, a life member at Spring Valley Golf Club wrote, 'The picture of Vern Morcom that emerges is that of a man of great talent who, in the limited time available to him, and despite recurring bouts of illness, gave everything he could to the work that he loved - the design, construction and maintenance of golf courses'."

Clayton finishes by saying: "Melbourne, Victoria and Australia were indeed fortunate to have a family of such talent and influence, and while the legend of MacKenzie will live on, the Morcoms stand there beside him as true unsung heroes."

GEORGE RÜB

Superintendent, McLeod Country Golf Club
1974-1990

(By Doug Robinson)

The name George Rüb is not one that will generate itself readily in the minds of many of today's superintendents, but George Rüb was an enthusiastic administrator within the Queensland and national superintendent association movements during the 1970s and early 1980s.

Rüb served on the committee of the Queensland Greenkeepers Association for 16 years and held the office of president from 1973 to 1986. During his term as president, Rüb participated in many interstate negotiations, such as organising national turfgrass conferences, and throughout 1983 and 1984 he represented Queensland in the discussions about forming a national association.

Rüb was an active trade unionist and that had a strong influence on his support for the



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George Rüb: "A man of honour and integrity."
Doug Robinson

failed move to have the national association registered under federal industrial law between 1978-1981. As an aside, it would be fair to say that the foundation of the Queensland Greenkeeping Award of today is there because of his efforts with the Queensland Miscellaneous Workers Union.

He was always forthright and steadfast in his convictions and became a prominent and respected member of the national forum and more than once brought about changes in policy because of his disciplined and calculated approach to matters.

Rüb worked on the groundstaff at the prestigious Indooroopilly Golf Club, which is now known as the St Lucia Golf Course. Indooroopilly Golf Club developed a public golf course known as Long Pocket Golf Club, just down the road from St Lucia, and Rüb served as head greenkeeper there for many years. Ultimately the club consolidated its golfing activities at the Long Pocket site and developed the 36-hole complex we know today.

In 1974 Rüb became superintendent at McLeod Country Club, probably the first and only all-women golf club in Queensland, if not Australia. He worked there until his retirement in 1990.

According to the book 'Women on Course: The McLeod Country Golf Club', Rüb became

the first person in Queensland to receive a certificate of recognition for his contribution to the greenkeeping industry from the Industry and Commerce Training Commission in 1985.

I am told that if any of his staff at McLeod arrived late for work they endured a fate worse than death. So much so that one of his apprentices admits that on more than one occasion he turned his car around and returned home when only two minutes from the gate, the early morning news on his car radio having signalled the fact that he would be late.

Reporting home and reporting in sick was a far better option than being late as Rüb was a compassionate man and insisted on staff taking their entitlements and properly recuperate if they were sick.

Rüb had the uncanny ability to defuse a situation either by his words of considered wisdom or by claiming malfunction of the hearing aid he depended upon and requesting time to make necessary adjustments so he could hear the full gist of the argument.

Rüb gave unselfishly of his time and effort to better the lot of those to follow in an industry he loved. As an employee and as an administrator at state and national level he was a man of honour and integrity.

RUPERT 'RUBE' WALKERDEN Curator, Royal Sydney Golf Club 1921-1966

Long time Royal Sydney Golf Club superintendent Rupert 'Rube' Walkerden was one of the key players in the NSW industry and played a major role in the formation of the very first national superintendents association.

Walkerden began his career at Royal Sydney Golf Club back in 1921 and remained there until his retirement in 1966.

In the book 'The Royal Sydney Golf Club: The First One Hundred Years' there is this mention of Walkerden: "R.B Walkerden started as a greenkeeper and rose to be curator, retiring in 1966 after 45 years' service. He was a link between the former largely uneducated greenkeepers and the present highly qualified superintendents.

"In 1930, as part of a grooming process by which he rose to a position of authority, Walkerden was sent to Elanora Country Club where Major Tenbosch instructed him in the art of greenkeeping. Walkerden had strong connections with the golf club superintendents association and was held in very high regard by that body."

Walkerden was an active member of the NSW association and in 1973 replaced Cliff Meredith as NSW president, a post he held for a number of years.

A conference dubbed the First National Turf Conference was held in Sydney from 12-16

May 1969 and delegates visited 13 golf courses and the Ryde College of Horticulture. From 1969 to 1972, the tours became increasingly formalised, in no small part to the efforts of Walkerden.

Taken from a report of the Delegates of the Queensland Greenkeepers Association on a visit to NSW in 1969, it was written, "we can surmise that co-operation on a national level led to better, more uniform organisation, with one consistent element being the involvement of long-serving organising secretary Rupert 'Rube' Walkerden of the NSW association, who determined national conference venues and signified shared endeavour on national activities."

Three years later at the national curators conference in Adelaide, the Australian Golf Course Turf Management Association was formed with Walkerden named as national liaison officer alongside president Les Barlow and vice president Bill Powell.

Walkerden took immense pride in his work and took a very proactive stance in passing on his knowledge to the younger generation, conducting guest lectures and organising conferences.

The Walkerden name continues to this day and the NSWGCSA annually plays off for the Rube Walkerden Trophy in late summer.

Walkerden was another of the pioneers of the superintendent trade and through his abilities both on and off the course, set a benchmark for others to follow. ♣



Rupert 'Rube' Walkerden was part of the very first national association formed in 1972

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20th Australian Turfgrass Conference Review

ATM Editor Brett Robinson reviews the hugely successful 20th Australian Turfgrass Conference in Melbourne.

A touch of the Olympics came to Melbourne in late June and it wasn't the Olympic flame that touched down en route to Athens for the start of this month's global sporting spectacle in Greece.

We're talking about the 20th Australian Turfgrass Conference. Or at least that's how Bonnie Doon Golf Club superintendent David Scaife chose to sum the week-long conference which attracted record numbers.

The New South Welshman commented during the AGCSA's annual general meeting that it was like an Olympic year for the turf industry whenever the conference was held in Melbourne. Not a comment to be sneezed at from someone north of the border, given the inclement weather which greeted delegates.

And the statistics are there to back Scaife up. In what is being touted as the biggest turfgrass industry gathering ever to be held in the Southern Hemisphere, over 840 delegates gathered for the conference, while 1000 visitors attended the two-day, 7500m² tradeshow which contained over 80 of the turf industry's leading companies.

Across the Yarra River in the Melbourne Convention Centre, a who's who in turf was assembled with six keynote speakers headlining the education component for 2004.

Despite battling a recent brush with poison ivy, a streamlined version of Jim Moore made a welcome return to Australia and in his typical entertaining southern drawl outlined the recent changes made in the USGA's greens construction

specifications (turn to Tech Talk on page 26 for more on these changes).

With water issues and salinity an increasing issue for superintendents and turf managers, the lead-off talks from Professor Ron Duncan and Dr Bob Carrow proved to be a highlight for many delegates. Their subsequent workshops were also extremely well attended and outside of the lecture theatres they could be seen on numerous occasions conducting impromptu discussions with superintendents and turf managers keen to bend the ears of the experts.

With the near-unplayable greens of Shinnecock Hills foremost in many minds, plant pathologist Dr Bruce Clarke took to the stage to talk about the influence management practices have on turfgrass diseases, before the John Batman Theatre fell silent as Terry Muir gave an insight into the environmental management minefield the industry currently has to tread through.

Aside from the golf course management stream, the 2004 conference boasted education streams for turf mechanics, bowling greenkeepers and sportsfield curators.

Upwards of 250 turf managers turned out for the sportsfield management stream and according to TGAA Vic president Anthony Uhr-Henry the feedback was very positive and upbeat.

"Everyone was very happy with the speakers and the topics and there was plenty of discussion," says Uhr-Henry. "It was also great to network and socialise with those guys from out of state and from other countries."

After the keynote presentations, the turf management stream kicked off with talks from David Aldous and John Neylan on sportsfield surfaces which generated plenty of debate.

Wednesday proved the big talking point, however, with the day-long cricket wicket seminar. Highlights from the seminar included Ron Makin's talk on preparing wickets for the World Cup in South Africa and the very candid comments from English Cricket Board pitch inspector Chris Wood.

Wood gave an overview of his role, the practices employed to prepare wickets in England and some of the issues facing county and international cricket venues. He also made some very interesting comments about the ability of English curators and finished by saying



A strong international line up of speakers included (from left) Dr Bruce Clarke, Dr Bob Carrow, Professor Ron Duncan and the USGA's Jim Moore



The two-day tradeshow at the Melbourne Exhibition Centre was one of the biggest ever and covered an impressive 7500m² of floorspace

that Australian curators led the way in cricket wicket preparation worldwide, and that the quality of the Australian pitches was a real credit to the curators' abilities.

Across at the Melbourne Exhibition Centre, around 50 mechanics, including one all the way

from the Hong Kong Golf Club, converged for the turf mechanics stream.

Australian Turf Equipment Technicians Association president John Haines (*Kew Golf Club*) said the conference was a great hit for delegates and the tradeshow gave them

the chance to check out the latest in turf equipment technology.

"The guys were well pleased and the lectures from the likes of the big three - Toro, John Deere and Power Turf (*Jacobsen*) - were well attended," says Haines.

Around 30 delegates took part in the post conference turf tour which took in the RAAF Museum at Point Cook, a barbecue lunch at the Silvan factory, followed by a tour of the MCG to view construction work.

One of the highlights of the conference was the excellent attendance of overseas delegates. Without the clash of dates experienced last year, around 50 turf managers and agronomists came across from New Zealand, including New Zealand Golf Course Superintendents Association president Brad Burgess.

A group of Kiwi students, lead by Otago Polytechnic lecturer Gary Smith, actually hit the fundraising trail in order to attend the conference. From all reports, the group had an enjoyable week and gleaned plenty of information to take back across the Tasman.

As well, there were representatives from Bali, including Yulius Wododo from Bali Nirwana Golf Club, and representatives from as far away as China, The United Arab Emirates and India.

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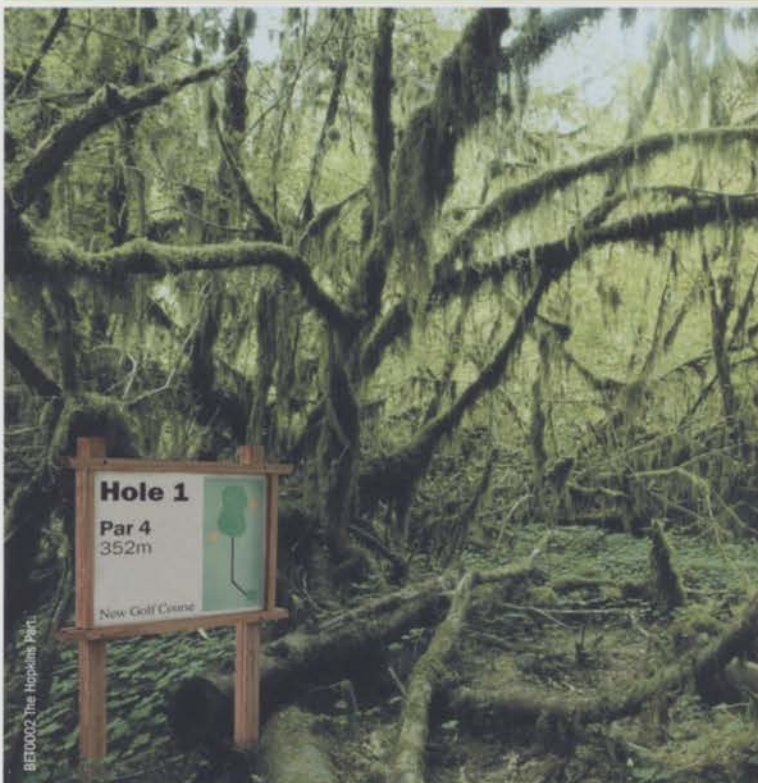
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The conference also saw the final launch of the Certificate III Horticulture Delivery and Assessment Guides by the National Turfgrass Education Committee as part of its remit to formulate a consistent national turf education pathway.

Just as the education working group was formed during last year's Adelaide conference, Melbourne also saw the formation of another working group.

The AGCSA, in conjunction with the AGU, held the first meeting of the Environmental Management Working Group.

The group has been charged with developing a long term strategy that not only increases environmental management within the industry, but boosts awareness of the golfing public and the general public about the advances made on golf courses and the positive environmental impacts.

The group includes AGCSA representatives Steven Potts, John Neylan and outgoing president Mark Couchman, state presidents Michael Picken, Craig Easton and Peter Harfield, Terry Muir, Ross Perrett and trade company representatives including Cameron Russell (*Toro*), Kevin Harris (*Bayer Environmental Science*) and John Matheson (*Simplot*).

The social functions were again well attended with punters getting in on the foxy theme of the Welcoming Cocktail Reception. A couple of Tasmanians, one resplendent in Essendon garb and the other dressed as a white maggot, walked away with the best dressed honours.

Roy Masters and The Falcons kept those at the conference dinner entertained, while the numerous functions put on by the trade during the week were well attended given the number of rather jaded delegates that turned up for the early morning education sessions.

Gambin Takes The Reins

The AGCSA will head into the next two-year period with a new president after Gold Coast Burleigh Golf Club superintendent Jeff Gambin was elected unopposed as the association's new president.

Gambin, an AGCSA Board member for the past five years, takes over from Mark Couchman (*Cromer Golf Club*) who steps down from the Board after seven years service.

Gambin's position on the Board has been filled by Queensland stalwart Jon Penberthy, who joins existing members Martyn Black (*Castle Hill Country Club*) and Martin Greenwood (*Kingston Heath Golf Club*).

Gambin, who combined has over 20 years involvement at both state and national level, says he is looking forward to confronting some of the big issues over the next couple of years, and paid special tribute to former AGCSA president Doug Robinson for his influence and support.

And The Winners Were...

The 2004 AGCSA Awards took on special significance this year with the Distinguished Service Award given posthumously to five golf turf industry legends – Mick and Vernon Morcom, Claude Crockford, George Rüb and Rupert 'Rube' Walkerden. For a full review, turn to page six.

As well, four others were honoured at this year's awards function, including Victorian stalwart Ray Keane who received the Distinguished Service Award.

Two New South Welshmen and former AGCSA board members won two of the most eagerly sought after awards.

Elanora Golf Club superintendent Peter Schumacher won the Excellence in Golf Course Management Award, while David Warwick deservedly won the Claude Crockford Environmental Award for his environmental achievements at Avondale Golf Club.

The Western Australian contingent had cause to celebrate after Craig Webley became the first ever Graduate of the Year recipient to hail from WA.

ATM has a full profile of the 2004 winners starting on page 22.



New AGCSA president Jeff Gambin (right) and AGCSA Board member Jon Penberthy

**History in the Making -
AGCSA Golf Championships**

As South African Retief Goosen was putting the finishing touches to his second US Open triumph on the glass top greens of Shinnecock Hills, 90 well-rugged up superintendents converged on famous sand belt course Metropolitan Golf Club for the annual Toro-sponsored AGCSA Golf Championships.

While the US Open made the headlines for all the wrong reasons, the 2004 AGCSA Golf Championships created history as Trevor Ridge (Sawtell Golf Club) and Anthony Toogood (Albury Golf Club) both fired four-over rounds of 76 to tie for the top prize.

For Ridge, the win was a long time coming. A regular contender for the trophy, the moustachioed master of the greens had finished there or thereabouts in recent years, and at the Brisbane conference in 2002 shot a sub-par round at Royal Queensland only to be pipped by defending champion Daryl Sellar.

At Metropolitan, Ridge, starting on the fourth hole, quickly dropped three shots in the first three holes, but with back-to-back birdies on eight and nine managed to claw back to be

one over by the turn. Three bogeys on the back nine saw him finish on 76.

Teeing off on the first, Toogood was also one over after nine and teed off on the 15th still looking good at one over. Three bogeys on 15, 16 and 17 however, saw him blow out to four over.

One of those bogeys came as a result of his ball lodging in an ant hill. The incident prompted Toogood to ask for a ruling back at the clubhouse and after a call to the Victorian Golf Association for an official verdict, Toogood had to record the bogey.

While Toogood was cursing his run home, three times defending champion Daryl Sellar was cursing the entire course. The Glenelg Golf Club superintendent, a hot favourite to make it four in a row, was subdued by the Metropolitan greens and finished with a disappointing 83.

While Sellar's performance caused an immediate inquiry in South Australia, his state compatriots Ivan Swinestead (*Tee Tree Gully Golf Club*), Kym Traeger (*Berri Golf Club*), Stephen Newell and Richard James (*both Kooyonga Golf Club*) created a little bit of history by winning the state teams title for the first time ever.



AGCSA Golf Championship winners Trevor Ridge (left) and Anthony Toogood

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04

20th Australian Turfgrass Conference Review

The quartet (with scores of 31, 30, 36 and 30 respectively) scored 127 points for SA and in doing so turned the tables on their Victorian counterparts who collected the honour at Royal



Mark Couchman (Cromer Golf Club) blasts out of a bunker

Adelaide. Victoria scored 125 to finish second ahead of NSW (119), WA (117) and Tasmania (108), while Queensland finished a distant last with 101.

As Ridge and Toogood battled it out for the main prize, the rest of the field was content with trundling around the immaculately prepared course, with a number of players more interested in taking photographs and examining superintendent Richard Forsyth's pristine putting surfaces.

Freeway Golf Club superintendent Glenn Davie managed to concentrate on his game, however, flying the Victorian flag as he collected the stableford trophy.

Davie, playing off a nine handicap, shot 80 (37 points) and finished a single point ahead of Stephen Newell (*Kooyonga Golf Club*) and Merv Hayward (*Cypress Lakes Golf Club*).

Speaking of Hunter Valley's finest, the presentation ceremony afterwards produced the sledge of the week after Hayward failed to show when he was called up to receive the stableford runner's up prize. When it was asked where he was, the ever-reliable Peter Foggarty quipped, "He's in quarantine".

Back to the golf, and nearest the pins went to Trevor Strachan (*Lake Karrinyup Country Club*) on the 2nd and Stuart Moore (*Southport Golf Club*) on the 11th.



Trevor Ridge tracks his tee shot on the 2nd at Metropolitan

Shaun Probert (*Camden Lakeside Country Club*) crushed the longest drive on the 18th.

Shot of the day, however, had to go to AGCSA Board member Martyn Black. The Castle Hill Country Club superintendent, who finished with a very respectable 79, drained a 100 foot-plus putt for birdie on the par 4 15th, the hardest hole on the course. On the same hole two groups later Andy Hugill (*Mona Vale Golf Club*) scored a great up and down, sinking a 40 footer from the fringe for par after blasting out of a bunker.

Avondale Golf Club superintendent David Warwick also deserves special mention after he blew his round out of the water by five-putting on his first hole.

Across at Commonwealth Golf Club, Wayne de Fraga scored 34 points to walk away with the AGCSA Corporate Cup.

Power Turf's Greg Clark finished runner-up with 33 after a countback.

Can't Touch 'Em

Melbourne saw the return of the Scotts Touch Challenge with 30 punters braving polar conditions to take the field at Olympic Park, home turf of the Melbourne Storm.

After a rousing rendition of the national anthem, the teams took to the turf and before the first whistle was even blown the claret was flowing. Unfortunately it had nothing to do with foul play, rather Richard Hooton (*Kangaroo Valley Country Club*) managed to slice his face with his fingernails while attempting a fancy pass.

Despite some shocking hospital passes and blatant cheating, the matches were played in great spirit and even NSWGCSA president Craig Easton managed to find his way across the tryline.

Merv Hayward endeared himself on Scotts boss Martin Morgan by smashing him into the turf, while AGCSA business development manager Scott Petersen, who put together the bumper tradeshow during conference week, was clearly the Achilles heel of the composite trade team, costing them a number of tries with his bungling efforts.

David Westall's 50m intercept try will be long remembered, but at the end of the evening it was the NSW Legends team, not surprisingly led by Hayward, that finished on top.

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Post Conference Turf Tours

While the fickle Melbourne weather held off for most of conference week, it unleashed its fury on delegates who braved the two turf tours on the Friday.

One busload headed to the sand belt courses of Huntingdale, Metropolitan and Royal Melbourne, while another headed to the Mornington Peninsula to take in the home of last year's Australian Open, Moonah Links, next door neighbour The Dunes, before finishing in torrential rain at Michael Riordan's Patterson River.

At Huntingdale, superintendent Mike Freeman took delegates, which included an eager Jim Moore, around the course, explaining the club's current program of converting greens, extending championship tees and hole reconstruction.

Across the road at Metropolitan, superintendent Richard Forsyth kicked off with a tour through the maintenance shed before heading out to the 2nd where discussions centred around the course's greens and bunker maintenance. Delegates also got the chance to

examine the VGA's trial plots and the 1st fairway where Forsyth has both Wintergreen and Santa ana growing side by side.

Final stop was at Australia's perennially No.1 ranked course Royal Melbourne, a fitting place to conclude the tour considering the posthumous Distinguished Service Awards handed out earlier in the week to former Royal Melbourne superintendents Mick Morcom and Claude Crockford.

Over a roast lunch, current superintendent Jim Porter explained that in recent years with the development of pure couch fairways, Royal Melbourne is still maintaining its two grass policy (common couch and *Poa*) as the preferred method of having good playing conditions for 12 months of the year.

Porter described how in 1988 work began on replacing the old Suttons mix with Pennncross on the composite course greens, and how after the tournament greens were completed, the program was suspended while the newer varieties of bents were assessed and research carried out on the re-creation of the Suttons mix.

In 1996 the 12th East was sown with a new Suttons mix and Spring 1999 saw six greens of the tournament course (*Pennncross*) replaced.

Since then, Porter and his staff have converted 35 greens to the new Suttons mix with the final green on the 6th East being done in conjunction with the relocation of the hole over this winter.

The subsequent walk around the course had many delegates, particularly the large contingent of New Zealanders, in awe and most probably missed a lot of what Porter was saying on account of taking too many photographs.

See you in 2005

During the Melbourne conference it was announced that the 21st Australian Turfgrass Conference would be held at the Moama Bowling Club, Moama on the border of NSW and Victoria. The conference will be held over four days from 6-9 June, 2005.



Royal Melbourne superintendent Jim Porter takes delegates around the course during the post conference turf tour



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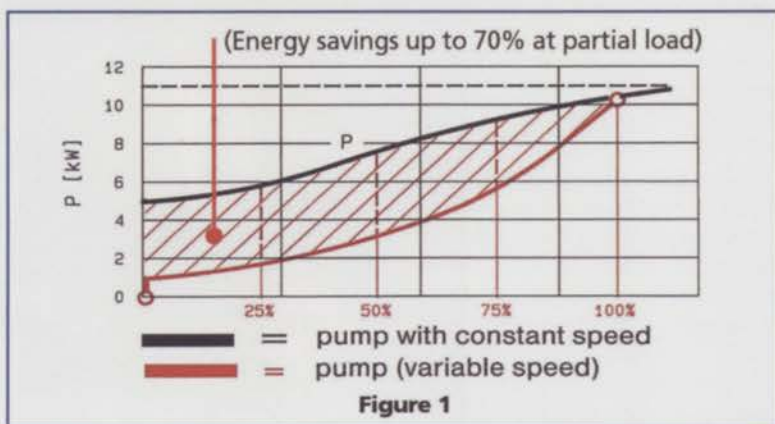
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20th Australian Turfgrass Conference Review

While the AGCSA Awards ceremony took on special significance this year with the posthumous awards to five industry legends, four others added their names to the AGCSA's honour boards. ATM Editor Brett Robinson profiles 2004 AGCSA Awards winners Ray Keane, Peter Schumacher, David Warwick and Craig Webley.

DISTINGUISHED SERVICE AWARD

Presented in partnership with Scotts Australia
Ray Keane (Gisborne Golf Club, Vic)

Being in the right place at the right time could possibly sum up 2004 Distinguished Service Award recipient Ray Keane's experiences in the superintendent trade.

It began some 35 years ago when the club he was a member of decided to make some big changes. Gisborne Golf Club was then a small country club with a Vern Morcom-designed layout with sand scrapes and 400 sheep. Keane was employed as superintendent in charge of construction, of upgrading to grass greens and removing the sheep every Friday and bringing them back on Mondays.

The only training in those days was a part-time course at Burnley College in Melbourne, and it was while Keane was there that a fellow student suggested that if he really wanted to broaden his knowledge he should join the Victorian superintendents (then curators) association.

The first meeting Keane attended was at the prestigious Victoria Golf Club in Melbourne. Upon arriving, Keane parked his car only to be met with verbal abuse and a loud blast of a car



Distinguished Service Award winner
Ray Keane

horn. Unbeknownst to Keane, he had parked in the Secretary Managers car park who soon let it be known what he thought of those who "cut grass".

Keane entered the Victorian association at a time of change and with his desire to learn and be involved quickly became part of the association executive.

"To be part of new initiatives was exciting and rewarding and together with learning from people of the ilk of Claude Crockford from Royal Melbourne it proved to be a great time," recalls Keane.

Keane also played a role in the early development of the national association which despite being a challenging and frustrating time saw him form many friendships with the likes of George Rüb and Rube Walkerden who were honoured posthumously at the 2004 conference.

Throughout Keane's career there have been many highlights, almost all coming about because he happened to be in the right place at the right time and had a desire to be involved.

Keane, a life member of the VGCSA, was president of the Victorian association between 1975 and 1985, and was national association president for a time.

In 2000, he was among a number of superintendents to be awarded the Australian Sports Medal for services to the industry, while his most treasured honour was a life membership at his home away from home, the Gisborne Golf Club.

"A very important thanks goes to the Gisborne Golf Club for their support and encouragement over the years," says Keane. "To have been a part of the club's development over the years and to be involved in the improvement of the course, which is ongoing, is the most rewarding thing of all."

EXCELLENCE IN GOLF COURSE MANAGEMENT

Presented in partnership with John Deere
Peter Schumacher (Elanora Golf Club, NSW)

Elanora Golf Club superintendent Peter Schumacher is a pretty tolerant sort of chap but even he would have to admit that during the past four years there were times when that mild mannered demeanour was stretched to the limits.

During that time, Schumacher - who joined the 1056-member club in May 1997 - and his team rebuilt the course, encountering numerous obstacles along the way.

Schumacher's first priority was to secure the club's water source for the long term and after the examination of many options, which included the use of effluent, it was decided to increase the capacity of the existing 24-megalitre dam to 90 megalitres at a cost of \$800,000.

With that phase completed in 2001, Sydney-based Golf By Design was contracted to come



Excellence in Golf Course Management
Award winner Peter Schumacher

up with a master plan and after an extensive education program members unanimously voted it through.

After a further 11 months of countless meetings, the DA was approved. Little did Schumacher know that this was where the problems would begin.

While neighbouring residents were happy to go along with the plans on paper, when it came to trucks delivering 64,000m³ of fill, howls of protest quickly emanated. Under pressure, the council threatened to get an injunction in the Land and Environment Court (LEC) and the club decided, voluntarily, to stop work.

After commencing a Class 4 application against the council in the LEC seeking clarification of the DA, the club eventually shook hands with the local mayor on a deal that allowed 60 trucks a day between 9am and 3pm.

Construction of the back nine finally commenced in August 2002 and was finished in January 2003. Front nine construction started a month later and by February 2004 all 18 holes had been completed, which included the reversal of the front nine layout.

The entire course was finally opened on 27 March, 2004. Over a four year period Schumacher and his team rerturfed (predominantly sod) the entire course to Wintergreen couch (the course was a mix of Queensland blue couch and kikuyu), installed a new irrigation system, and constructed 19 USGA spec A1 bentgrass greens to replace the existing tired *Poa* greens.

Forty-five tees were built, a driving range added, 64 bunkers constructed, two wetlands formed, over 15,000 natives planted and the maintenance facility upgraded.

So after four years of hard graft, which also saw the birth of his three daughters, Schumacher is now looking forward to one thing - spring.

Finalists: Shane Bisseker (*Darwin Golf Club, NT*), Leigh Yanner (*Moonah Links, Vic*)

CLAUDE CROCKFORD ENVIRONMENTAL AWARD

Presented in partnership with Bayer Environmental Science

David Warwick (Avondale Golf Club, NSW)

If there are two things that Avondale Golf Club superintendent David Warwick can't impress enough when it comes to improving the environmental management of golf courses, it's communication and persistence.

Together, they have proved to be Warwick's most important tools when it has come to instituting some pretty major changes in the environmental management of his Sydney course.

And the dividends are starting to come. Not only has the course achieved Audubon



Claude Crockford Environmental Award winner David Warwick

certification, one of only a handful in Australia to do so, it has now led to Warwick being bestowed the Claude Crockford Environmental Award, one of the AGCSA's most prestigious honours.

"I have a great passion for the environment," says Warwick. "I'm not a tree hugging greenie. It's something that I've always been interested in and something I've always done, even when I was at Arundel Hills.

"I certainly didn't think it would lead to Audubon certification and to win the Claude Crockford award means a lot. It's industry recognition for all your efforts and I'm tickled pink."

Off all the changes instituted at Avondale since Warwick started there in 1996, the most important has been the elimination of high-maintenance, out-of-play areas which has freed up staff to concentrate on the preparation of playing surfaces.

These areas have been replaced with native grasses and plants, and over the past five to six years over 50,000 natives have been planted and up to four hectares of unnecessarily turfed areas regenerated into bush.

Since joining Avondale, Warwick has finished the conversion to Santa ana and is currently in the process of converting all greens to Penn G2 (nine have been completed).

With water conservation a huge issue, Avondale goes down the line of conserving every possible bit of water. A new irrigation system has been installed while Warwick has instituted a wetting agent injection program which he swears by.

A new washdown bay and chemical filling station have been constructed, while \$1 million was spent on an environmentally friendly maintenance shed, the design of which took into consideration pollutants and energy saving measures.

One of Warwick's great passions in achieving his environmental goals has been education and outreach.

"I think the communication of any environmental projects that golf course superintendents are going to implement is going to be easier to sell now than it was five years ago, simply because of all the legislation and environmental issues facing the industry," says Warwick.

To keep members up to speed with the course's environmental management strategy, Warwick gives regular talks to members and conducts course and maintenance facility tours.

Outside of the club, Warwick teaches environmental issues at his son's local school and has conducted guest lectures at local TAFEs. He has also been invited to other courses to show how things are done at Avondale.

"It's not just about preaching the Audubon way," Warwick says. "I have a wider view that I am trying as much as possible to educate various people and government agencies that golf courses are actually beneficial to the environment because there are plenty of people out there that think otherwise."

Finalist: Scott McKay (*North Lakes Golf Club, Qld*)

AGCSA GRADUATE OF THE YEAR

Presented in partnership with Toro Australia Craig Webley (Lakelands Country Club, WA)

If there was one thing delegates gleaned from Craig Webley's DVD award presentation, it was that the 2004 AGCSA Graduate of the Year winner won't be troubling the ranks of the PGA.

At the end of his presentation, Webley - the first national graduate award recipient to come from Western Australia - had compiled an extensive bloopers reel taking the mickey out of his golfing prowess.



Graduate of the Year Craig Webley



20th Australian Turfgrass Conference Review

But aside from the sliced tee shots and missed three foot putts which had delegates rolling in the aisles, the presentation also demonstrated one very important thing - Webley's desire to fashion a successful career as a superintendent.

Back in 2000, Webley was 18, unemployed and looking for direction. He spotted an advert in a local newspaper for an apprentice greenkeeper at Lakelands Country Club and from that moment hasn't looked back.

Taken on board by Lakelands superintendent Craig New, Webley set about proving his worth and such has his development been that New recently promoted him to leading hand (3IC). Webley says he has relished the increased responsibility that has come with the promotion.

"I'm enjoying leading staff and becoming more involved in the management of the course and decision making," Webley says. "It has allowed me to pass on some of my knowledge and I feel like I'm able to give a little bit back to the industry which has given so much to me."

In March 2004, Webley's achievements were honoured at state level when he was awarded the 2003 Best Indentured Apprentice by the GCSAWA.

In handing out the award, WA president Brad Sofield commented, "You proved unquestionably your passion for your chosen path and for your home course, but more importantly a passion to develop academically and practically as a turf manager and fulfil your ambitions of becoming a superintendent. It is

truly refreshing to see a young person who has goals and is driven, but realises it takes more than words to achieve those successes."

Webley currently holds a Certificate III in Horticulture (turf management) and is planning on attending night school in order to attain Certificate IV. He has his sights firmly set on becoming a superintendent and has also expressed a desire to travel and become actively involved with the GCSAWA.

Finalists: Mathew Windisch (Kama Golf Club, NSW), Haydn Reid (Flagstaff Hill Golf Club, SA), Matthew Beddison (Horsham Golf Club, Vic) 🏆

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USGA Greens Construction Specifications

2004 Revision



Construction of a USGA spec green at Elanora Golf Club in NSW

During the 20th Australian Turfgrass Conference, delegates welcomed back the thoroughly entertaining James Francis Moore, the USGA's director of construction education. Moore outlined the recent revisions made to the tried and trusted USGA greens construction specifications and the process involved in reaching them. ATM examines those changes made to one of the most researched methods used in golf course construction.

The USGA's 'A Method of Putting Green Construction' has served largely as the industry standard for building putting greens since it was first introduced in 1960.

The last series of changes were made back in 1993 and since the very first set of guidelines they have been revised six times (1965, 1968, 1973, 1982, 1989 and 1993). These revisions have taken into account improved construction techniques and new scientific information discovered through turfgrass research.

During this period there has been a rapid increase in technology and products available to golf course builders and construction superintendents and a huge amount of research has gone into greens construction and the characteristics of USGA spec greens by the likes of soil scientists.

Over the past 10 years some US\$1 million of USGA sponsored research efforts have been undertaken around the world with 18 separate projects funded on a variety of issues such as:

- Slope of greens;
- Water movement in USGA and California profiles;
- Engineering characteristics of sand rootzones;
- Impact of inorganic and organic amendments;
- Environmental impact of sand-based greens;
- Status of microorganisms in sand-based greens and in fumigated rootzones;
- Testing protocol for physical soil testing laboratories; and
- Development of quality control parameters and procedures.

The 2004 revised guidelines were released in March and came after an extensive one-year period of review by the USGA's Putting Greens Guidelines Review Committee. The committee comprised of nearly 100 experts from around the world including golf course architects, USGA staff, select scientists and superintendents.

A final review committee, which included the likes of Bob Carrow, Ed McCoy, James Beard and Michael Hurdzan, then finalised 18 possible revisions that were felt had the potential to reduce the cost of greens construction without sacrificing agronomic quality.

"It was not a simple process," says USGA director of construction education Jim Moore. "But you're not going to see big changes. We don't make a dime off of the USGA guidelines and if you don't want to build to USGA guidelines then don't."

"The sole effort in publishing this is to put something out there that is flexible and that we know works. The changes made to the 1993 guidelines are all intended to help make the construction of USGA greens less expensive and less complicated.

"The 2004 guidelines are by no means a complete rewrite of the 1993 guidelines. In fact, a number of the revisions are quite subtle. The bottom line is that even after undergoing a very intense review process, the guidelines were pretty sound to start with and didn't need major revision.

"We had 100 people all over the world working through the guidelines with a fine-toothed comb and this is what we came up with. And we were wide open to change."

As Moore comments, the revisions are only minor, with six changes made in relation to saturated hydraulic conductivity, rootzone depth, inorganic amendments, gravel size and CU factor and the use of 'flat pipe'.

Saturated Hydraulic Conductivity

The 1993 guidelines specified two ranges regarding saturated hydraulic conductivity (SHC). 'Normal' referred to a SHC value of 6-12 inches (150mm-300mm) per hour, while 'accelerated' referred to a value of 12-24 inches (300mm-600mm) per hour.

Moore says these ranges caused a great deal of confusion, particularly with the latter value where people misconstrued 'accelerated' to mean better. Moore says a number of greens have and are continuing to be built with SHC values of between 400mm-600mm an hour which have led to ongoing problems during the growing-in phase and with dry rootzone mixes and nutrient deficiency.

Both ranges have been eliminated in the 2004 guidelines which simply call for a minimum

SHC value of 150mm per hour, a change that Moore says will cause a number of US superintendents "to choke".

Rootzone Depth

The 1993 guidelines called for the depth of the rootzone to be 12 inches (300mm), plus or minus 0.5 inches (12.5mm).

According to Moore this was an extremely "tight" tolerance that proved very difficult to achieve and in the 2004 guidelines the tolerance has been widened to plus or minus 1 inch (25mm).

Gravel Size

Properly sized gravel is sometimes difficult to find resulting in increased transportation costs. Moore says that research has proven that the specification for gravel can be safely widened.

The 2004 guidelines increase the range of gravel that can be used in a USGA green, with the bridging factor for gravel altered from five times to eight times.

Gravel CU Factor

The CU (coefficient of uniformity) factor for gravel has also been increased, which again will make gravel easier to find and less costly. Uniformity factor was 2.5 but under the 2004 guidelines it is now less than or equal to 3.0.

Inorganic Amendments

Previous versions of the USGA guidelines specifically prohibited the use of inorganic amendments. The 2004 guidelines allow the use of such amendments pending approval by the physical soil testing laboratory of the final rootzone mixture.

Porous inorganic amendments such as calcined clays (porous ceramics), calcined diatomites, and zeolites may be used in place or in conjunction with peat in rootzone mixes, provided that the particle size and performance criteria of the mix are met.

The guidelines say that users of these products should be aware that there are considerable differences between products and long-term experience with some of these materials is lacking.

If used, the amendments must be incorporated throughout the entire depth of the 12-inch (300mm) rootzone. Polyacrylamides and reinforcement materials are not recommended.

Flat Pipe

Previous versions of the guidelines also prohibited the use of 'flat pipe'. The 2004 guidelines allow the use of such materials, as opposed to round pipe, as long as they meet the ASTM 7001 standard, are not covered with a 'sock' or geotextile sleeve, and are a minimum of 12 inches (300mm) in width.

One of the changes that Moore wanted introduced but that didn't make it past the final cull was to increase the percentage of very fine sand in the rootzone mix. The committee's decision, however, was to keep rootzone mix particle size guidelines the same.

With the 2004 guidelines now out, Moore says that the next revision won't be for a while yet. However, new research projects are already underway and others being considered to continue to address issues such as highly calcareous sands, the use of composts in the rootzone mixture and achieving accurate laboratory procedures and testing equipment.

"We'll also be sticking to our guns under pressure from other associations such as the architects and golf course builders, investigating miracle products and keeping up with new technologies in construction," Moore says.

"And we'll continue to make our findings available to the industry over the Internet."

The revised 2004 USGA greens construction guidelines can be downloaded from the Green Section of the USGA's website under course construction. ■



USGA director of construction education Jim Moore in full flow during his presentation at the 20th Australian Turfgrass Conference in Melbourne



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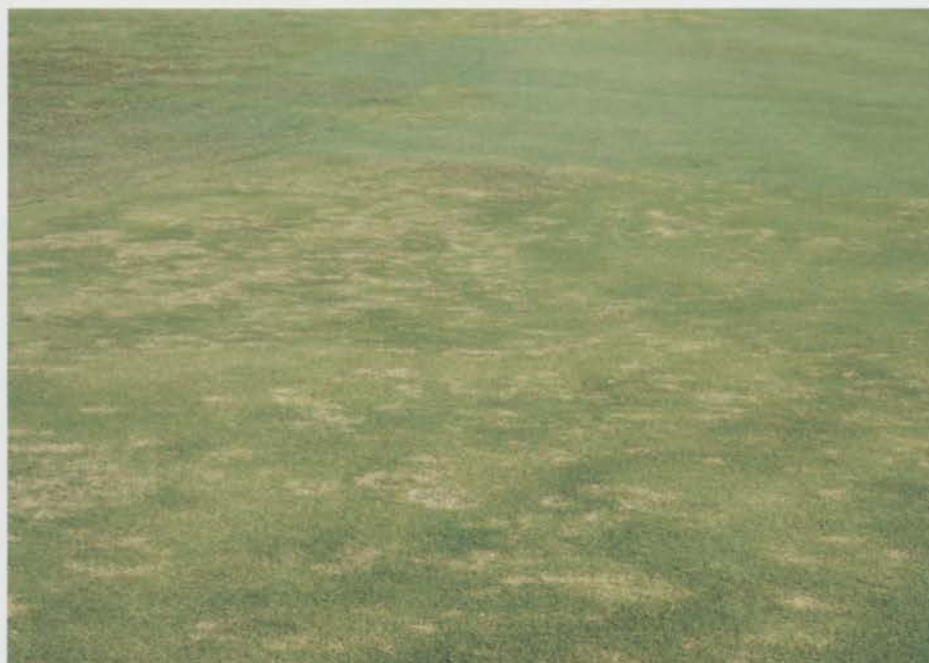
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Disease effects on a couchgrass fairway

In this AGCSATech Update, John Neylan discusses the performance of the new superfine bentgrasses and looks at winter management of suburban sportsfields.

BENTGRASS DISCUSSION

Since the introduction of the 'new' superfine bentgrasses about 5-6 years ago, there has been a steady uptake by golf course superintendents as new golf courses are built or greens reconstructed.

The Australian and Concord golf clubs were the first large scale (18 greens) early adopters of the new bentgrasses with the introduction of Penn-A1 and Penn-A4 respectively. In Victoria, the new courses on the southern tip of the Mornington and Bellarine peninsulas have extensively used Penn-A1, Penn-A4 and Penn-G2.

As with most new grasses there was very little local information on their management and performance and there has been a lot of learning along the way, particularly in relation to thatch management.

As part of this learning process a group of Sydney golf course superintendents (the 'Penn Pals') recently got together to share their experiences in how to best manage these grasses and what difficulties they were experiencing. I was fortunate to be invited to join this esteemed group for a chat.

Some of the observations made included;

- Thatch management has always been at the forefront of everyone's mind when managing these new bentgrasses. Regular dusting (about every two weeks depending on growth) is an essential tool in its management.
- Nitrogen rates are about 1.2-1.4g N/month/m².
- High density provided good resistance to the invasion of *Poa annua* and there is a trade off between promoting growth and density and the rate of thatch accumulation.

- The new high-density bentgrasses appear to be more prone to damage from pitch marks and are slower to recover. The new bentgrasses with their high tiller density exhibit slow lateral growth and therefore do not fill in any damaged areas particularly quickly.
- Scarifying was discussed as a means of thatch removal and it was generally deemed to be too disruptive and the turf was too slow to recover.
- Coring with 9mm tines was considered by some to cause the surface to become too soft and that regular mini-tining (four times a year) is preferable.
- There was also a discussion on the influence of lime (CaCO₃) and in particular calcium on the formation of thatch. Anecdotal evidence suggests that alkaline and high calcium soils may assist in the control of thatch accumulation.
- Mowing heights are generally at about 3-3.5mm up to six days a week.
- *Poa annua* control is always an issue when discussing bentgrass and regular hand weeding is considered by many as the best method of control.

The discussion was of great interest and to hear the observations of these experienced superintendents was most enlightening. As a general observation I believe that they are doing a very good job and possibly being a little too critical of their own performance.

Dr Clarke Holds Court

At the recent 20th Australian Turfgrass Conference we were fortunate to have Dr Bruce Clarke, a plant pathologist from Rutgers University in attendance. During the week Dr Clarke was able to meet informally with a group of Queensland superintendents to discuss some 'persistent' disease issues.

Dr Clarke did an exceptional job of working through the symptoms as described to him by superintendents, and with the assistance of several photographs he decided that it was most likely a root disease such as *Gaeumannomyces spp.*

Dr Clarke made several suggestions on what could be tried as a means of combating a disease such as *Gaeumannomyces spp.*

- Check the soil pH. Alkaline soils are conducive to the presence of *Gaeumannomyces spp.*



Outfield condition after high usage, high rainfall and lack of drainage

and acidifying fertilisers should be applied to lower the pH. Dr Clarke warned against lowering the pH to less than 5.5.

- Apply manganese as a foliar spray. Manganese is tied up by the *Gaeumannomyces spp* fungi and becomes unavailable to the plant.
- Soils low in potassium make turfgrasses more susceptible to the disease.
- Make sure that the thatch is kept under control. Thatch not only harbours the disease organism it also reduces the effectiveness of fungicides that are applied.
- Apply a fungicide such as azoxystrobin (e.g. Heritage) as a preventative treatment. The fungicide needs to be applied about six weeks before the disease is likely to appear.

From the discussion it was recommended to take soil and plant tissue tests to determine the soil potassium and manganese levels and to make any necessary corrections. It was also recommended to undertake some small trial plots applying separate strips of; acidifying fertiliser (e.g. ammonium sulphate); liquid manganese; potassium fertilizer; azoxystrobin application in late summer/early autumn while there is still good growth; and scarifying to remove thatch.

Dr Clarke was a strong advocate of conducting small test strips to see what works in your situation.

Winter Management of Suburban Sportsfields

The majority of sportsfields in Melbourne are ryegrass based and with the recent water restrictions and lack of a decent autumn break, many grounds are presently in poor condition. This can be attributed to grounds having an insufficient cover of grass or a turf with a very shallow root system at the commencement of the football/soccer/rugby season. Coupled with this, there have been some heavy rainfall events.

Grounds that were hard at the start of the season due to the dry conditions have been badly affected. The rainfall has not been able to penetrate deep into the profile and therefore the upper portion of the profile becomes saturated and causes turf to be easily displaced during periods of active usage.

Compacted grounds must rely heavily on surface fall and properly working drainage systems to allow excess water to be quickly removed from the surface before the grounds are played on. In many cases this drainage infrastructure is either not present, insufficient or lastly not working effectively due to contamination of the drainage sand.

To effectively drain the top 50mm of a sportsfield topsoil back to field capacity drain spacing may need to be as close as two metres apart depending on the drainage rate of the soil and the depth of the profile. McIntyre and

Jakobsen, 1998, state that for sub-soil drains to be spaced at 10-metre intervals on sporting facilities is a complete waste of time and money.

If drainage systems are not present and grounds have insufficient surface fall there is little that can be done during the winter months to improve surface quality in wet weather. The best course of action is to limit the usage on the grounds to a bare minimum.

This may require training sessions to be preferably relocated or otherwise, shortened in length and conducted away from the pavilion if lighting permits. Lastly, home games maybe required to be moved to allow for sufficient time for the ground to dry out.

If grounds are to be extensively used through this period they must have the ability to recover from the wear imposed. The only way this can be achieved is through fertilising grounds during the winter months. While it is uncommon to fertilise during the winter months the ryegrass must be given every opportunity to recover so a grass cover can be maintained.

Rolling the grounds is also beneficial to flatten footprints caused during play in wet weather. Some footprints can be deep on very sodden grounds with turf that has a poor root system and therefore is easily scuffed. If these footprints are allowed to dry they can become very hazardous in terms of ankle injuries occurring during the next game or training session.

Post-season renovation is vital in ensuring the ground has sufficient grass cover with a deep rootzone prior to the next football season. There is no doubt the grounds will have compacted badly during the winter, with the probable exception of sand-based grounds.

To overcome this, compacted grounds should be allowed to dry out sufficiently and then some type of compaction relief undertaken (ie; the use of a vertidrain) before the areas of poor coverage are oversown.

If grounds are not decompacted and simply resown the grass cover may be acceptable but the root depth of the plant will be severely restricted and therefore susceptible to drought stress in the summer and provide poor anchorage during winter play. ▀

Shifting Sands –

A Spotlight on Queensland Golf Course Projects

PACIFIC HARBOUR GOLF AND COUNTRY CLUB

Project: Construction of an 18-hole golf course

Location: Bribie Island

Project Manager: Rick O'Loughlin

Comments:

After a prolonged period of planning and development, the 18-hole golf course at Pacific Harbour Bribie Island has started construction.

Bribie Island is located off the coast from Caboolture where it forms the northwestern perimeter of Moreton Bay. It is 14,300ha in size and with a maximum elevation of less than 10m much of the island is either just above or below the water table, creating an extensive system of wetlands.

Designed by Ross C. Watson, the golf course will use wetlands, lakes and native trees to fulfil strict environmental guidelines. The Urban Development Institute of Australia and the Environmental Protection Agency have chosen Pacific Harbour as a 'Champion Demonstration Project'. One of a select few projects to be honoured in this way, the course will be showcased for its sustainable environmental practices.

The course site presents the development and construction team at Pacific Harbour, headed by Rick O'Loughlin, with a whole new challenge. The general principal and design philosophy for developing the site as a golf course is to utilise the natural soils on the site and to develop a typical links style course that has minimal inputs in terms of nutrients, water and pesticides.

The gently undulating site has sandy ridges that run approximately north-south and is typical of traditional sand belt type conditions. The natural coastal plants and bracken ferns are typical of well-drained sandy soils that are strongly acidic making it an ideal site for a links style course.

The soil profile comprises a sandy topsoil layer with a low to moderate organic matter content overlying strongly bleached, sand subsoil. Underlying much of the site is a layer



Preparing the site for the new Pacific Harbour course at Bribie Island has begun

of 'coffee rock' occurring either as a dark coloured, solid cemented layer or a dark coloured partially cemented layer. Soils on the site can be broadly classified into three groups.

Deep Sands

The deep sands are characteristic of the high points on the sand ridges with at least 2m of sand, no sign of 'coffee rock' (i.e. deeper than 2m) and no free water seepage. The topsoil layer has low organic matter content.

Shallow Sands

This soil group is the predominant soil group within the site and occurs at the mid-point of the sandy rises or in depressions on the sand ridges. This soil group consists of up to 2m of sand overlying 'coffee rock' with water seepage occurring at 1-1.6m. The topsoil layer has low to moderate organic matter content.

Swamp Soils

The swamp soils are confined to the low, drainage points of the site. The soils are characterised by wet, dark organic topsoil over

a saturated sand layer and 'coffee rock' at about 1.5-2 metres.

Soils are medium-fine to fine sands with a narrow particle size distribution and generally have a moderate to high drainage rate (hydraulic conductivity). The topsoil from the swamp soils is the only soil type that has more than 1 per cent silt plus clay and in combination with a very high organic matter content has a very low drainage rate.

Turfgrass species utilised will be Wintergreen couch for tees, fairways and roughs, while the greens will be built to USGA specifications and seeded with TifEagle couchgrass. The golf course and landscape areas are to be fully irrigated utilising the Toro LTC plus satellites and Toro SitePro control system.

As an aside, all construction, grassing and grow-in staff involved with the project are to have undertaken a course in General Safety Induction (*construction industry*) or commonly called in Queensland a 'blue card'. ♣

VICTORIA PARK GOLF COURSE

Project: Hole reconstruction

Superintendent: Fred Davies

Location: Brisbane

Comments:

For the 20-odd months leading up to May of this year, Victoria Park Golf Course in Brisbane

has resembled more of a construction site than a municipal course.

Located bang smack in the middle of Brisbane, just 2km away from the city centre, the course was reduced to nine holes during construction of the Inner City Busway which now ploughs directly underneath the course.

As a result, the course, designed by David

Burrup, went through an extensive redesign with four new fairways (*Wintergreen couch*) and greens (328) constructed and slight modifications made to several existing holes. The new-look 18 holes opened on 29 May. ♣

NUDGE GOLF CLUB**Project:** Hole reconstruction, South Course**Superintendent:** David Brushfield**Location:** Brisbane**Time Period:** November 2003 - July 2004**Approximate Cost:** Under \$300,000**Comments:**

Ask Nudgee Golf Club superintendent David Brushfield to sum up the last half year in two words and you'll get a succinct response - "bloody busy".

Not content with maintaining 36 holes at the Brisbane-based club, since November 2003 Brushfield has rebuilt six holes (2, 14-17 and a new par three) on the South Course and when ATM spoke to him in mid-June he was putting the finishing touches to the project.

The works complete an ongoing course reconstruction program which has stretched out over the past 20 years. The old straight up and down, flat layouts that had little appeal have been wiped out, replaced by newly

contoured fairways, additional bunkers and five brand new greens. A new irrigation system has also been installed.

Brushfield says that works have helped to improve the overall playability of the South Course, which in the past has been the poorer sibling of the North Course. Members preferred championship and pennants events on the North Course, with the South course used for green fee paying players.

The club also made the decision to go ahead with the changes to the South Course due to the proposed Gateway Arterial upgrade project which is expected to get underway within the next five years.

Such a project was going to slice a considerable chunk out of the South Course so the club took a proactive stance and ever since November Brushfield and his staff have been flat tack.

The Gateway Arterial project proposes to reduce growing congestion on the motorway by widening it between Mt Gravatt-Capalaba and Lytton roads, constructing a second

bridge across the river, and building a northern deviation through old and new airport sites to Nudgee Rd.

As an aside that second bridge is likely to dramatically impact on Kelly Hyland's Royal Queensland layout, which already has one Arterial bridge through the course. While plans are in the formative stage, Royal Queensland could stand to lose five holes on the eastern side of the existing bridge (holes 12 to 16) if the second bridge gets the go-ahead.

All new tees on the Nudgee South Course have been turfed with Wintergreen, the new 328 greens are now 60-100 per cent bigger than the originals, while the common couch fairways have been overseeded with a rye/couch 90-10 mix. A smallish lake has been added as well.

"I'm actually looking forward to having a hit myself," says Brushfield, superintendent at Nudgee for the past eight years. "I haven't played for a while and I'm quite eager to tee up." ♣



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Shifting Sands – A Spotlight on Queensland Golf Course Projects

ROYAL PINES

Project: Construction of Riverside course

Superintendent: Stuart Laing

Location: Gold Coast

Comments:

Home of the Australian Ladies Masters for the past 13 years, Royal Pines will be extended to a 27 hole facility upon completion of the new nine-hole Riverside course later this year.

Designed by Graham Marsh Golf Design, the course boasts a different character to the existing 18-hole layout. The course has smaller greens and less forgiving fairways and with surrounding natural lakes will also see water come more into play than on the existing course.

Wintergreen couch has been used on the tees, fairways and surrounds, while the greens are all 328. With an overall length of 2950 metres, the course boasts 44 bunkers.

It is expected that once the Riverside course is complete, work will begin on revamping the existing 18 which will take place over the next three years. ♣

REDLAND BAY GOLF CLUB

Project: Hole construction

Superintendent: Max Laverty

Time Period: Summer 2003-04

Approximate Cost: \$45,000-50,000

Comments:

Redland superintendent Max Laverty has been in the business long enough to know the vagaries of golf club committees, so the current situation he finds himself in comes as no surprise.

Ensnared at Redland Bay for the past 16 years, the savvy super has rebuilt 13 holes on the par 72 course and is now in the frustrating position of waiting on the committee and budget constraints to press on with the remaining five holes.

Last summer Laverty and his staff recontoured the 7th fairway. Although reconstructed five years ago, it was initially built on a salt floodplain which has proved difficult to grow turf on.

The fairway was raised and recontoured to make a more attractive hole. ♣

TEWANTIN NOOSA GOLF CLUB

Project: Hole construction/reconstruction

Superintendent: Jon Penberthy

Comments:

As part of an ongoing course improvement program that has been in effect for a number of years, recently appointed Tewantin Noosa superintendent Jon Penberthy has just finished constructing a spare hole.

The par 3 hole will allow the club to keep 18 holes in play while work is then started on the 17th and 13th holes respectively. Both par fours are to be completely redesigned with new 328 greens. ♣

The next edition of Australian Turfgrass Management magazine will highlight projects in South Australia and Northern Territory.



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Turfing USA



The contrast between turf and desert mountain ranges makes for a picturesque scene at the Pete Dye designed Mountain Course Palm Springs

Earlier this year Gold Coast Burleigh superintendent Jeff Gambin accompanied a group of turf associated members on a trip to the Golf Course Superintendents Association of America (GCSAA) tradeshow in San Diego. As well as attending this major event, the group visited a number of courses including Farm Links, a well-known research facility that continually trials new products.

SAN FRANCISCO TO PALM SPRINGS

After two days in San Francisco, which included a visit to one of the Simplot fertiliser companies, we travelled south to the Monterey Peninsula, which at the time was hosting the AT&T Pebble Beach Pro-Am.

The tournament uses three of the area's famous courses - Pebble Beach, Spyglass Hill and Poppy Hills. Most of our time was spent inspecting the highly rated Pebble Beach. The *Poa annua* greens appeared waterlogged and soft with heel marks adorning the putting surfaces. The lush fairways were a mix of rye and *Poa* and the square tees were of a similar blend.

A kikuyu eradication program was implemented a number of years ago by using the chemical Drive. While areas of this undesirable grass were still evident, the program has reportedly been a great success.

Apart from the special seaside location, one of the highlights of the course was the plethora of indigenous trees which dominated the vegetative rough areas. The trees reminded us of our own coastal banksias and Moonah trees. There were also a number of eucalypts used as feature trees.

Our trip through the Monterey area continued past the Trent Jones Jnr/Tom Watson designed

Spanish Bay. This was one of the first courses in the USA to use a pure fescue/bentgrass fairway blend in an attempt to cater for the harsh California climate.

Pacific Grove, a special Scottish links style golf course, was next door. Famous architect Tom Doak in his book 'The Confidential Guide to Golf Courses' described the course as such; "The white sand and ice plant off the fairways are not quite the same as Scotland's heather and gorse but the layout does roll across the dunes much like a typical Scottish links course".

For US\$30 a round you can play Pacific Grove, which appeared great value compared with the US\$480 required for a round at Pebble Beach.

PALM SPRINGS

After departing the peninsula we travelled south along the coast before heading east to bypass Los Angeles before arriving in the desert oasis of Palm Springs.

The first golf course in the area was built during the 1940's, and with an unlimited underground water source the area grew rapidly. There are now, incredibly, more than 160 golf courses within a 30 square mile precinct with world renowned designers such as Norman, Nicklaus, Palmer and Dye all represented.

We reached our destination La Quinta Resort just on dark and the quality of oversown turf around the landscaped areas excited us all to what the two courses on site must be like.

We were invited to have dinner with Craig Shaffer (manager of Simplot Partners - Palm Springs) who updated us with oversowing varieties such as Caddyshack rye on fairways/tees with a mix of bent and rough bluegrass on greens.

Base grasses were predominantly Tifgreen on tees and fairways with Tifdwarf or Tifeagle on greens. They only have a dormant period of eight weeks but cannot afford to show clients brown turf. Most courses allow for an annual budget for seed of \$US200,000!

The following day, our fifth since arriving, began with a sunrise walk through the Pete Dye designed Mountain Course. La Quinta is one of the original watering holes in Palm Springs and has been developed into the premier golf/accommodation centre in the area.

The early morning light on the desert mountains was a real contrast compared to the quality of oversown turf.

We walked the back nine first, which commences with private homes along both sides of each hole.

Holes 14-17 had great backdrops of the desert mountain ranges, especially the 16th which boasted a 168-yard carry across rocky



An aerial view of the Palm Springs area shows the amazing number of courses in just a 30 square mile area

desert terrain from the back tee. Pete Dye has blended both courses beautifully into the desert landscape and the snowcapped mountain backdrops were breathtaking.

Another Dye course, PGA West, which is home of the annual PGA Desert Tour event, is also in the area.

Afterwards we visited Craig at his warehouse in Palm Springs and he gave everyone an amazing insight into golf course management in the area.

Some of the interesting points were;

- Over 3 million kg of seed is sold per annum;
- Oversowing rate used is 8kg/100m²;
- Kikuyu is controlled by the chemical 'Drive';
- Primo Maxx is available in 40l drums;
- Merit is sold as a soluble power;
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The view from one of the elevated tees at the trial course, Farm Links

SAN DIEGO

From Palm Springs we headed south to San Diego where we would take in the GCSAA tradeshow. As expected it was huge, even the admission price was \$200. There was a healthy contingent of Australians there, while the AGCSA was officially represented at the conference through Steven Potts, Mark Couchman and John Neylan.

It was great catching up with the number of Aussies who now make their living as superintendents in places like the United Arab Emirates, China and the US. It was also interesting to meet superintendents from countries such as Singapore, Japan, Turkey and even Chile. Highlights of the tradeshow included:

- The new Toro 'quick-set' part circle sprinklers;
- Magnetic sole plate for Jacobsen reel mowers;
- Roller attachment to triplex greens mowers;
- Salt-tolerant paspalum varieties;
- Huge range of Bobcat accessories;
- Numerous lake aeration systems;
- Several hydraulic vehicle hoists;
- Washdown and chemical storage facilities.

ALABAMA

Following the four-day GCSAA conference, it was on the plane to head to our final destination Farm Links, a one-hour drive from Birmingham, Alabama.

Our accommodation was Parker Lodge, a spectacular traditional southern style lodge set in an idyllic lakeside location behind the 17th green. Among our group were two Argentines, a Chilean, a Singaporean and an Australian working in China.

Farm Links is a research facility owned and operated by Purcell Technologies Inc, the developers of Polyon controlled release fertilisers and pesticides.

The facility boasts a world-class 18-hole championship golf course and the working farm relies on a number of companies for support including Toro, Club Car, Bobcat, Syngenta and Simplot. The golf course is a Hurdzan/Fry design and was one of the best courses we saw during the visit.

The greens are a mixture of A1 and A4 bentgrasses while the fairways and tees were TifSport couch. During the height of summer, large fans are required to create air movement in the humid environment to reduce disease on the turf. Reverse cycle heating/cooling units are also used at various times throughout temperature extremes.

Zoysia grass is being trialled on a number of tees subject to shade problems, while broom sedges and love grasses dominate the native rough areas. Controlled burns are also used to encourage further native vegetation.

The 'Gabs' system, which is a plastic barrier surrounding each green to prevent couch encroachment, is used with great success throughout the golf course. The tee tops were oversown but at a much lighter rate than what we saw at Palm Springs.

The maintenance building was a very large, modern facility with an unbelievable amount of machinery (I counted 20 turf trucksters alone). Even with the size of the maintenance compound, there was still not enough room to fit all the equipment under cover.

For example, there were huge electrically driven fans that are used around the clock during the summer to help keep the bent greens cool. Even with the fans they still spray weekly for pythium due to the humidity.

Topdressing sand was under cover to help keep dry for their fortnightly dusting and de-thatching programs. They were trialling a new Bobcat utility type vehicle that had all manner of attachments such as a trenching chain, post hole digger, stump grinder and, of course, backhoe and bucket.

From there we were introduced to Farm Links' director of agronomy and applied research, Mark Langner, who briefed us on some of the turf varieties they will be planting into different areas of the course in spring.

We then had the chance to play the course which boasted some incredible elevated par 3 tees with very generous fairways, and large greens that had gentle movement throughout their surface.

Fairway hazards of rock lined drains and bunkers were easily seen from tees. It was surprising to see no course furniture on tees, except for painted rocks as tee markers.

The following day we were introduced to Tom Lacy, who was the construction and grow-in superintendent for Farm Links. He is now employed by Toro to conduct lectures about their latest technology and for Purcell when groups of visitors are in the lodge.

He invited us across to the Purcell laboratories. Upon arriving there we first walked into a huge storeroom that had hundreds of one tonne bags of differing analysis and was told about the quality control procedures.

He then took us through the laboratory explaining the testing procedures of each batch of fertiliser and conducted a demonstration of how they coat urea particles with Polymere instead of spraying.

We were then driven over to the Purcell movie theatre where Dr Jeff Higgins provided a presentation on the differences between coating of fertilisers, organic versus synthetic and some interesting results from some of his graduate students on the use of Primo and Heritage.

After lunch we headed back to the Farm Links maintenance facility where Tim put us through our paces with the prototype bunker raking and coring machines. We then turned our attention to irrigation equipment with my main interest being the satellite boxes that can convert hydraulic to electric and sprinklers that can be easily converted from part circle to full circle with an adjustment of nozzle angle.

On our last day at Farm Links we had breakfast with the president and chief executive of Purcell Technology, David Purcell. After breakfast we had time to go for one more walk/drive around Farm Links catching up with



The vie from the 17th green back to the elevated tees at Farm Links

Mark Langner who had time to discuss his role as president of the Alabama chapter of the GCSAA.

ACKNOWLEDGEMENTS

Jeff Gambin would like to thank Rob Halsall, operations manager for Golf Buying In Service, for helping compile this article. Both Jeff and Rob would like to thank John Matheson (Australasian area manager for Simplot) and Matthew Scott (Simplot Partners) for the tour. Photos courtesy of Matthew Scott. 🌱

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Lasius neoniger ant queen on closely mowed bentgrass

University of Kentucky researchers are studying the biology and behaviour of mound-building ants, *Lasius neoniger*, in an effort to develop an effective control strategy to limit their mounding activities on golf course tees and putting greens

Mound-building nuisance ants have become one of the most troublesome pests in golf course maintenance, with problems occurring when the ants construct nests on putting greens and tees.

Ant nests, which are located underground, often have multiple entrances each surrounded by a small volcano-shaped mound of soil.

Mounds are formed from soil particles that the worker ants bring to the surface while excavating burrows and enlarging the nest chambers.

Ant mounds can be very abundant in high-sand rootzone putting greens and tees. Besides being unsightly, they dull mower blades, clog machinery, and smother closely mowed grass. On putting greens, ant mounds disrupt smoothness and uniformity and can directly impact the game.

This article provides an update on the current USGA-funded research project concerning biology and proactive management of turfgrass ants on golf courses.

BASIC ANT BIOLOGY

Most of the nuisance ant problems on golf courses in the cool-season and transitional zones seem to be caused by *Lasius neoniger*, the so-called turfgrass ant (1).

Worker ants, the form most often seen, are light to medium brown and about 2-2.5 mm long. *Lasius neoniger* is a cosmopolitan species that typically nests in sunny open areas.

The subterranean nest consists of shallow interconnected chambers and is seldom more than 25-38cm deep. Besides workers, the nest contains a single reproductive queen as well as immature stages (eggs, larvae, and pupae) that collectively are called the brood.

For most of the growing season, the queen lays eggs that develop into infertile female workers that cooperate in the various tasks in the colony including cleaning and enlarging the nest, gathering food, defending the nest from natural enemies, and tend to the queen and her brood.

In mid to late summer she begins laying eggs that develop into reproductive individuals,

i.e., males and new queens. These winged reproductive ants emerge from the nest in late summer, mate, and the newly fertilised young queens then fly or crawl to new sites to overwinter where they will start a new colony the following year.

Egg-laying begins in early spring. Queens initiating a new nest first lay a small batch of 10-20 eggs. This first brood will develop into tiny workers called nanitics. Nanitics, although small and weak, begin foraging for food for the queen, ensuring that she will have enough nutrients to lay additional eggs. The queen remains in the nest and lays eggs that develop into normal workers.

The colony then grows rapidly during late spring and early summer as the ants enlarge their foraging area and increasingly more brood and workers are reared. Winged reproductive forms are produced in late summer to complete the cycle. It is believed that once a nest is established, the resident (old) queen may survive and lay eggs for more than one year.

We determined the seasonal pattern of mound-building by counting active *L. neoniger* mounds on 10 sand-based, bentgrass tees on each of two Kentucky golf courses monthly from February until November.

Mounding started in February or March, increased rapidly in April and May, and declined by late summer.

Workers of *L. neoniger* forage on the surface for food including insect eggs, small insects, or insect fragments. A successful foraging trip results in the worker depositing a trail pheromone from its hindgut while returning to the nest.

Additional workers use this trail to find the resource discovered by the scout. Subsequent workers reinforce this trail pheromone so long as the food resource is present.

Workers also may obtain carbohydrates by feeding at extrafloral nectaries, or by collecting nectar from flowers of nearby plants.

For example, we have observed *L. neoniger* feeding at extrafloral nectaries of peonies in flower beds near turf.

Ants, in general, are beneficial to turfgrass. They are important predators contributing to natural control of pest insects (2, 3). Ants are

the main predators of white grub eggs in the soil, as well as eggs and small larvae of cutworms, sod webworms, and other turf insects.

Ants' burrowing and nesting activities promote air and water infiltration, and helps to incorporate organic matter into the soil where the nutrients are available to the grass roots.

ANT APHID MUTUALISM

Many ants obtain carbohydrates by feeding on honeydew that they obtain from aphids or other tiny insects that suck plant sap.

The honeydew, essentially sugary aphid excrement, is a complex mixture of nutrients including free amino acids and amides, minerals, and B-vitamins. Often the ants "tend" the aphids like dairy cattle and defend them from predators.

When an ant strokes an aphid with its antennae, the aphid relinquishes a sugary droplet from its anus. The ant swallows the droplet and carries it back to the nest where it is shared within the colony.

Lasius neoniger has a specific relationship with root-feeding aphids, *Geocica* spp., which they maintain in their nests.

The ants store and care for the aphid eggs over the winter, mixing them in with their own.

The root aphids hatch by early spring and are carried by the ants to nearby grass roots to feed. As the aphids multiply, the ants care for and protect them.

Turfgrass that receives supplemental nitrogen and other nutrients often supports large numbers of root aphids that provide ample honeydew for ants.

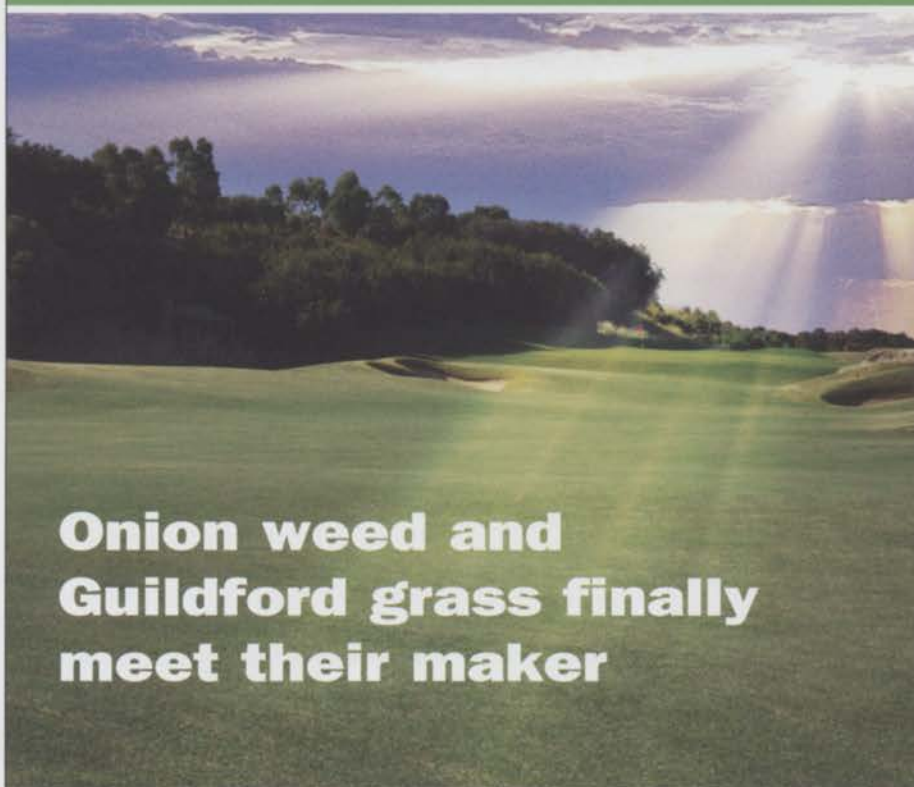
The ants also may eat some aphids to supplement their diet. The aphids themselves don't seem to measurably harm the grass.



Unnoticed ant mounds disrupt smoothness and uniformity of putting greens



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University researchers measured the distance from the edge of putting greens that ant mounds were found in an effort to understand the behaviour of the turfgrass ant

WHY ARE ANT MOUNDS MAINLY AROUND EDGES OF SAND-BASED GREENS?

Superintendents often report that ant mounds are most abundant around edges of sand-based putting greens. We speculated that the abrasiveness of the green's rootzone mix might be unsuitable for the soft-bodied root aphids from which the ants get food, and also, too for the ant nest itself. If that is true, then the main nest chambers with the queen may be restricted to just outside the collar in native soil.

Perhaps ant control efforts should be directed there, rather than spraying the green itself. Mounds encroaching onto greens may represent secondary nest chambers connected by tunnels to the main nest.

We tested that hypothesis by sampling the distribution of ant mounds and root aphids on sand-based greens, collars, and in adjacent roughs, and examining their abundance in relation to soil sand content.

Locations of several hundred mounds were mapped on 10 different greens on each of three golf courses by measuring the distance of each mound from the outside edge of the collar.

Aphids were sampled by pulling soil cores along transects centered on the collar and extending into the green or rough. The cores were placed in a Tullgren funnel apparatus which slowly dries the samples under heat and light, driving soil invertebrates downward into collection jars. Root aphids were then counted and the sand content of each core was analysed.

Our samples confirmed that *Lasius* ant mounds are concentrated around the edges of sand-based greens. More than 90 per cent of mounds on greens were located within 2 meters of the perimeter, and only 3 per cent were more than 3m into the green.

Root aphids were abundant in native soil, but absent from the high-sand rootzone of collars and greens. It was not practical for us to dig up the greens on cooperating golf courses

to look for ant nests, but this year we hope to sample the University of Kentucky research greens to determine if the main ant nests are located in the green, collar, or close rough.

While our results are correlative and do not prove that maintaining access to root aphids is why ants encroach from the perimeter, the ant-aphid mutualism may be a weak link that could be exploited for ant management.

We plan an experiment this year to determine if eliminating root aphids with a systemic soil insecticide will discourage ants from nesting in that area.

PRO-ACTIVE ANT MANAGEMENT

Superintendents often find that spraying putting greens gives only temporary suppression of mound-building nuisance ants.

Residues of fast-acting insecticides do kill workers foraging on the turf surface, but often they fail to eliminate the queen in her underground nest chamber.



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Research confirmed that *Lasius* ant mounds are concentrated around the edges of sand-based greens

Several pyrethroids including cyfluthrin, bifenthrin, deltamethrin, and lambda-cyhalothrin are labelled for ant control on golf courses. The best timing is early in the growing season, as soon as mounds appear.

At that time, new colonies are just getting started, and established ones are weakened from over-wintering, with depleted food reserves, older workers, and few new brood. Even so, spraying ant-infested turf is not likely to eliminate the ants.

Fipronil, the active ingredient in Chipco Choice and Chipco TopChoice granular insecticides, is labelled for control of mole crickets, fire ants, and nuisance ants on golf courses. It is very effective against *Lasius neoniger*, providing season-long suppression of mound activity. Fipronil is labelled for use in all Australian states.

Our earlier USGA-funded research (3) showed that spot-treating with MaxForce Fine Granule Insect Bait (Clorox Co.) often will eliminate ant mounds on putting greens. When the bait, which contains a slow-acting insecticide, is sprinkled around mounds, the ants take it into the nest and feed it to the queen and her brood. The nest dies out in a few days.

Ants do not take wet bait, so if trying this approach, apply the bait after dew dries and withhold irrigation for at least 12 hours.

This year we plan to determine if targeting newly-emerged queens in late summer will prevent new ant nests from becoming established in high-profile areas of golf courses.

Of the several trap designs we have tested, the most effective for queen monitoring was a sand-filled, 12 ounce plastic drink cup set flush with a golf cup cutter. Crawling queens burrowed into the sand which was periodically checked.

Superintendents might set a few such traps in green surrounds, or simply watch for the first queens crawling on greens or tees. Recent work (4) indicates that pyrethroids such as deltamethrin or lambda-cyhalothrin provide up to four weeks' residual control of cutworms.

Queen ant emergence seems to be synchronised, so spraying a narrow buffer zone just outside the collar once in late summer might intercept new queens, prevent nest establishment, and greatly reduce ant problems the following year.

There is much still to be learned about the biology of nuisance mound-building ants on golf courses. Our USGA-funded research

project hopefully will point to more efficient ways to manage this pest while reducing overall insecticide use. ■

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ACKNOWLEDGEMENTS

The AGCSA is grateful to the authors and USGA Turfgrass Environmental Research Online for allowing publication of this research in Australian Turfgrass Management magazine. Reid M. Maier is working toward his Masters degree at the University of Kentucky, Lexington. Dr. D.A. Potter, professor of entomology, is his advisor.



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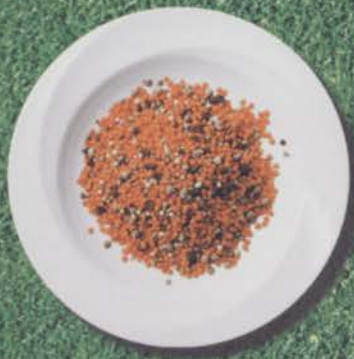
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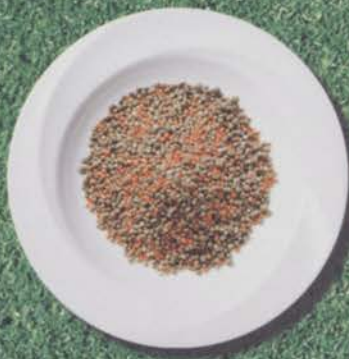
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The transparent drinking fountain covers used at Barwon Heads Golf Club

BARWON HEADS HAS IT COVERED

With the use of treated effluent for irrigation purposes now becoming more prevalent, golf course superintendents have a myriad of EPA guidelines and considerations to take into account. Such guidelines pertain to when and where the reclaimed water can be used with particular emphasis on minimising contact with golfers.

Barwon Heads Golf Club in Victoria is one such course which has been using treated effluent for a number of years and is taking part in the AGCSA's Horticulture Australia funded Recycled Wastewater Reuse Project which recently completed its second full irrigation season.

The course is irrigated with Class C treated wastewater from the local water authority plant which also services 13th Beach and The Sands, Torquay. Barwon Heads elected to irrigate greens, tennis courts and sensitive areas with a new potable water supply, with reclaimed wastewater used on all other areas.

In order to comply with EPA guidelines, golf operations manager Peter Frewin devised a cover for the course's drinking fountains. As the picture shows, the

transparent cover protects the drinking fountain from the possibility of being contaminated by mist during irrigation with reclaimed water.

Frewin, who seconded the services of David Golf and Engineering to construct the hinged covers, says they have proved to be extremely efficient, and the course's nine drinking fountains all have one attached.

Syngenta recognises our innovative superintendents and is proud to present Peter Frewin at Barwon Heads 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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Vines superintendent Rob Millington

Full name: Robert Millington
Nickname: Dr. Bob
Age: 44
Family: Wife Kerry, daughter Georgia (5)
Years as a superintendent: 20
Years as AGCSA member: 20
Years at current club: 7
Previous club: Thaxted Park Golf Club, SA
Number of staff: 7
Course specs: 18 holes, par 71, Santa ana fairways and tees, predominantly Seaside/Pennecross greens which are a mixture of push-up and imported sand profiles.
Favourite piece of machinery?
 Toss up between our materials injection unit and the PTO-mounted blower.

Most embarrassing moment as a superintendent?

During the 2002 SA PGA tournament, a momentary power failure caused the irrigation master controller to reset and many of the tee sprinklers came on during the first round. We were working split shifts so we took some time to respond.

Funniest moment you have seen on course?

A staff member slipped while using a Flymo to trim the bank of a dam. The mower hovered out onto the water and took more than two minutes to finally sink.

Plans for the course over the next two years?

Recently completed the transition of fairways to Santa ana. The next step is to establish a 3000m² Santa ana nursery to enable the sodding of surrounds and any remaining tees. We are hoping to improve on-course stormwater holding capacity by 50 megalitres within two years.

Best advice you have received on the job?

You've got one mouth for talking and two ears for listening!

One thing you would change about your job?

The constant politically correct paper trail with regard to OH&S taking the place of good old fashioned common sense.

Best part about being a superintendent?

Walking over each green at dawn with very few golfers on the course.

Worst excuse from a staff member?

"The alarm went off, I knew I should have got up, but I didn't."

Favourite spot on the course?

Third hole, par 3. The tee shot is played between 100-year-plus River Red gums.

Career highlight?

Studying under Prof. Peter Martin at Sydney Uni and picking 8 in the second round of footy tipping.

The overseas course you'd most like to visit?

Augusta National, to see the money trees.

Favourite movie?

National Lampoon's Vacation or Caddyshack.

Name 3 CDs you could not live without.

If 60s were 90s - Jimi Hendrix and the Mothers of Invention; Urban Hymns - The Verve; Into the Purple Valley - Ry Cooder.

If you could be any musician, who would you be?

Leo Kottke. ♪

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The SurePlay project team assess the Morningside Panthers goal square.

IMPROVED PLAYING SURFACES A 'SURE' THING

AFLQ State League players started their 2004 football season on demonstrably better playing surfaces, thanks to a major collaborative project involving Horticulture Australia, the Queensland Government's Department of Primary Industries and Fisheries, AFL Queensland, Brisbane Lions, Irrigation Turfgrass Consultancy Group, Hortech Services, and the University of Southern Queensland.

DPI&F principal horticulturist and SurePlay project leader, Craig Henderson, said that in pre-season games and training, coaches and players commented the grounds had been the best in 10 years or more.

He said that much of that could be put down to the work of Nick Jeffrey (Brisbane Lions head curator) and his staff, in aerating, scarifying, fertilising, controlling weeds, and (where available) irrigating targeted AFLQ fields.

"We had an excellent summer for doing this work, with regular rain and great grass growing conditions to assist roots stabilise the improved soil structure. The real test will be to see how the grounds stand up in winter," Henderson said.

The SurePlay benchmarking team has completed three rounds of assessments across all 12 project grounds (including elite grounds like the Gabba, and the Brisbane Lions training venue at Coorparoo).

Measurements were conducted in late winter 2003, early summer, and late summer (February 2004). Assessments included surface hardness using a 2.25 kg Clegg hammer, surface soil strength with a drop penetrometer

using AFL protocols, torsional shear resistance, surface soil moisture, sward height, total grass cover and species composition.

The project team has initially concentrated remediation efforts on a few suburban Brisbane grounds.

"Combining the management intensity, and our benchmarking results, we can separate the fields into four groups," Henderson said.

Some factors were similar across all grounds, for example turf recovery was excellent, even on the grounds without irrigation, thanks to the relatively friendly summer.

In the high wear goalmouths in July 2003, the coverage of desirable grasses (couch or kikuyu) at Zillmere and Morningside averaged only 25 per cent. By February 2004, desirable coverage had increased to 85 per cent at Morningside, and 70 per cent at Zillmere (without irrigation).

"We've also seen good improvement in couch and kikuyu growth in lower wear areas across the field, as well as particularly in the south-west flanks, immediately in front of the training shed on most ovals," Henderson said.

"These areas are often as compacted as the centre squares, and have lots of tufted weed grasses, like crowsfoot, or elastic (sometimes called wire) grass. Improving soil conditions, fertiliser and mowing practices, can help the couch or kikuyu out-compete the problem grasses, and assist a herbicide program."

Elite Fields

Surfaces at the Gabba, Coorparoo and Southport performed well in the assessments. According to Henderson, these fields were uniformly soft ($G_{max} < 100$), with penetrometer

measurements always better than AFL indicators (i.e. deeper than 2.5cm penetration on the first standard drop).

These grounds are characterised by intensive irrigation and mowing management, with mowing heights maintained at 35mm or less, even during the peak of summer. These grounds are also the only ones in the study over-sown with ryegrass each year, to provide green cover during winter.

High and Moderate Management Intensity AFLQ Fields

These Brisbane club-based fields are the initial targets of the project remediation activities. In late spring, low soil moisture caused high hardness ($G_{max} @ 150$), and penetrability less than the AFL indicator, despite moderate irrigation intensity.

With mowing heights increased to 50mm over summer, rain and aeration improved hardness (110 G_{max}), and improved penetrability to fair-excellent. The assessments on these grounds were very variable, with goal squares and the dressing shed flank harder, more worn and weedier than the flanks furthest from the clubhouse facilities.

Grass type on these grounds were variable, with either couch or kikuyu the dominant desirable species, depending on soil type and drainage patterns (kikuyu seemingly favouring wetter, low-lying areas).

Low Intensity AFLQ Fields

These fields were similar in initial performance to the previous group. They have had less remediation effort at this point in the project, and may not yet have access to irrigation. Hardness and penetrability were very related to moisture content (mainly rainfall dependent), with no obvious improvement over time, as would be expected from the lack of remediation.

"With these grounds, mowing heights were slightly lower (40-50 mm), and we measured very variable grass coverage - couch, broadleaf carpet grass and paspalum - with very pronounced goal square and training shed flank effects," Henderson said.

Gold Coast AFLQ fields

Compared to the low intensity Brisbane fields, these club grounds were softer, and not as variable across different parts of the ground. Summarising the Gold Coast findings, Henderson concluded: "In our Broadbeach and Labrador measurements, the moisture contents were drier at each consecutive assessment, increasing hardness and decreasing penetrability.

"The February penetrometer readings were just less than the 2.5cm AFL indicator, however there has been significant rain since then, which may have softened the grounds.

"Sward measurements suggest mowing heights slightly lower (35-40 mm) with grass coverage couch dominant, and some weediness in the training shed flanks.

Torsion measurements

While still in the early stages of interpreting the readings from the torsion meter, Henderson made the general overview that it took the most effort to break traction in areas of low penetrability, moderate to high wear, drier soils and with couch as the dominant grass species.

Other activities

Apart from the benchmarking assessments, the project is also investigating amendments to improve soil profiles and ground wear resistance, auditing irrigation systems and developing more efficient irrigation strategies, and developing and promoting industry training packages and opportunities. 🌱

For more information on this project, Craig Henderson can be contacted on (07) 5466-2222 or email: Craig.Henderson@dpi.qld.gov.au, or by visiting the SurePlay website, <http://sureplay.aflq.com.au>.

APPOINTMENTS

After 13 years, Stephen Seckold has resigned as superintendent of Windsor Country Club in NSW. Seckold, one of the silent, hard-working stalwarts of the industry, has departed on good terms and will relocate to Victoria after his wife was offered a lucrative job opportunity. Seckold has secured a sales position in Melbourne with AgPower. While in NSW, Seckold was responsible for editing the NSWGCSA newsletter for six years. ***

Justin Haslam, from the TGAA (ACT and surrounding regions), has taken over as contract superintendent at Yowani Country Club in the ACT. Former superintendent Carl Wangermann will remain at the club. ***

It must have been a quiet news day for the Warrnambool Standard on 18 May. Under the headline 'Long-lost student gets back on course', David Mason's arrival back in his hometown of Warrnambool was trumpeted as the return of the prodigal son. A dapper Mason, the former assistant superintendent under Richard Forsyth at Metropolitan Golf

Club in Melbourne, was pictured reclining in a suit on one of the tees at the Warrnambool Golf Club. Mason has returned to his home town to take over as superintendent from a departing Ross Corbett. ***

The Heritage Golf and Country Club in the Yarra Valley has appointed former St John Course foreman Lucas Skelton to the position of assistant superintendent on the Henley Course, which is currently under construction. Peter Cawsey has been promoted to the course foreman position on the St John Course. ***

In the last edition of ATM we reported that Andrew Bowles had come across from the Neanger Park Golf Club to take over at Axedale Golf Club. Bowles indeed was at Neanger Park, but not for the past 12 years! After leaving Neanger he joined Statewide Irrigation in Bendigo and has now returned to the superintendent trade. Alan Robertson is current superintendent at Neanger. ATM apologises for any confusion caused. 🌱

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The new Toro Workman e2050

TORO'S TRADESHOW TRIFECTA

Toro Australia released a number of new products during the 20th Australian Turfgrass Conference trade exhibition in Melbourne.

Heading the list of new products was the release of Toro's first electric product, the Workman e2050 utility vehicle, based on the Toro Workman mid-duty 2110 platform.

The new Workman e2050 has a 500 amp drivetrain for superior hill climbing capability under all load conditions. In addition, the ultra efficient drivetrain results in longer runtime between each charge, while regenerative braking provides superior stopping and efficient operation.

Toro's new electric utility features a fuel gauge that displays the current level of battery power. When the battery levels become significantly low, the unit limits top speed and acceleration, alerting the operator to locate a charging location.

The Workman e2050 includes several safety features such as a plug detector that stops the unit from operating when plugged in for recharging. In addition, the run away protection indicator applies the brake and sounds-off if the unit ever rolls down a hill without the operator depressing the accelerator. It also features a supervisor switch which controls the maximum speed employees can drive the vehicle.

The Workman e2050 provides stability, traction and ride with the convenience and low maintenance of electric power. Additional benefits include quiet operation and lower operating expenses.

Also launched at the tradeshow was the new ProCore 648 walking aerator. Positioning of the rear wheels within the coring path of the machine eliminates running over freshly aerated turf meaning smashed cores and turf ruts are a thing of the past.

Superior productivity is achieved with the ProCore 648's wide 1.22m (48 inch) aeration swath, which is up to twice as wide than other brands meaning it can aerate 18 average greens in about seven hours. The ProCore 648 aerates to a depth of 10cm (4 inches) to relieve compaction, improve root growth and enhance overall turf health.

The patented three-wheel series/parallel traction drive, combined with the high torque, low speed wheel motors, prevents slippage for reliable traction, easy transport and even hole spacing. The RotaLink geometry allows tines to enter and exit the ground cleanly leaving a smooth aerated surface.

The ProCore 648 features the TrueCore system, the industry's first automatic ground following system that maintains a consistent coring depth up to 10cm (4 inches). This system adjusts the aeration head to maintain the desired tine depth "on the fly" to compensate for ground undulations.

Toro's irrigation section also announced the expansion of the 800S series sprinkler range to include the new 835 and 855 models. The sprinklers provide greater watering flexibility with several exclusive features.

They include the patented TruJectory feature, which ensures performance flexibility

by allowing the user to adjust the main nozzle trajectory from seven to 30 degrees to match exact watering requirements.

Through fine-tuning of the nozzle spray height and radius, the 835 and 855 can be set to compensate for windy conditions, spray under tree canopies, over bunkers and out of sand traps, and to provide precise head-to-head coverage.

In addition, both models are back nozzle capable for those inset perimeter heads that need a little water behind.

The new 835S and 855S combine Toro's gear-drive design and extensive debris-resistant features with part- and 'true' full-circle performance, expanding the sprinklers' application flexibility and eliminating the need to stock service parts for two different models. ☘

For more information on the Toro Commercial range call 1800 356 372, or for details on the Toro Irrigation range call 1800 130 898.

BAYER REALISES ITS DESTINY

Bayer Environmental Science (BES) has released a unique new herbicide which will control hard-to-kill Guildford grass and onion weed in turf. 'Destiny' is also the first environmental science product to be based on the active ingredient iodosulfuron.

BES business manager Kevin Harris said the release of Destiny on the Australian market now offers a real solution for some serious problems in the turf market.

"As well as giving outstanding control of Guildford grass and onion weed, and white clover, Destiny is also an effective transition herbicide," he said.

Destiny can be used to remove ryegrass in early to mid-spring, which allows warm-season turf varieties such as couch and kikuyu to break dormancy and 'green up'.

"Destiny will be an essential product for golf course superintendents and curators from sporting facilities, especially in Australia's southern regions," Harris said.

"Turf managers are more likely to consider planting ryegrass as a winter option now they have access to a product that effectively removes ryegrass to ensure top-class quality turf in the spring."

Destiny has been trialled over the past four years and for Geoff Hatton from Cobbity Turf Farm, Destiny has proved to be the solution for the control of onion weed.

"I had a real problem paddock of Sir Walter softleaf buffalo grass, which was full of onion weed. A single application of Destiny eradicated the onion weed with no side-effects," he said.

Harris added that research and development would continue on Destiny, with further weed registrations likely in the future.



Destiny, which was officially launched at the 20th Australian Turfgrass Conference trade exhibition in Melbourne in June, will be distributed by Globe Australia nationally and Maxwell & Kemp in NSW. 🍌

For further information on Destiny, contact Bayer ES customer service on 1800 223 002 or visit the Bayer CropScience website at www.bayercropscience.com.au

HK BIOTECH TO SNAP UP PATON FERTILIZERS

Hong Kong biotechnology company CK Life Sciences has launched a full acquisition of Australian fertiliser company Paton Fertilizers for an undisclosed amount.

Announced in late June, the acquisition is subject to compliance with all applicable requirements of the Hong Kong Stock Exchange

Paton Fertilizers managing director Bruce Cairns welcomed the acquisition and said it would enable both companies to expand operations in Australia.

"The technology that CK Life Sciences brings to the Australian market, namely its eco-fertiliser NutriSmart, opens up a range of new opportunities for Paton," Cairns said.

CK Life Sciences, which has a market capitalisation of AU\$2 billion, has patented and developed the NutriSmart product, an environmentally friendly eco-fertiliser. NutriSmart is currently used by growers in more than 11 markets spanning three countries. Australia is a key market for CK Life Sciences and, since its introduction in 2001, NutriSmart is being used by growers in Queensland, Victoria, South Australia and Tasmania. 🍌

For more information, contact Bruce Cairns on 02 4729 2888.

CLUB CAR TO THE FOUR

Club Car launched its new 4x4 Utility at the 20th Australian Turfgrass Conference trade exhibition.

The 4x4 Utility has a number of new features including 'Intelle-tract' transmission. It has no shift lever to transfer into 4WD mode, unlike all other 4 x 4 light utilities. The intelligent transmission senses the rear wheels about to slip and automatically engages the front wheel drive train.

When traction is not needed it automatically transfers back to two-wheel rear drive, thus saving the wear and tear that occurs when

4WD units are fully engaged all the time when not necessary. The vehicle comes with either a 20hp petrol or diesel engine.

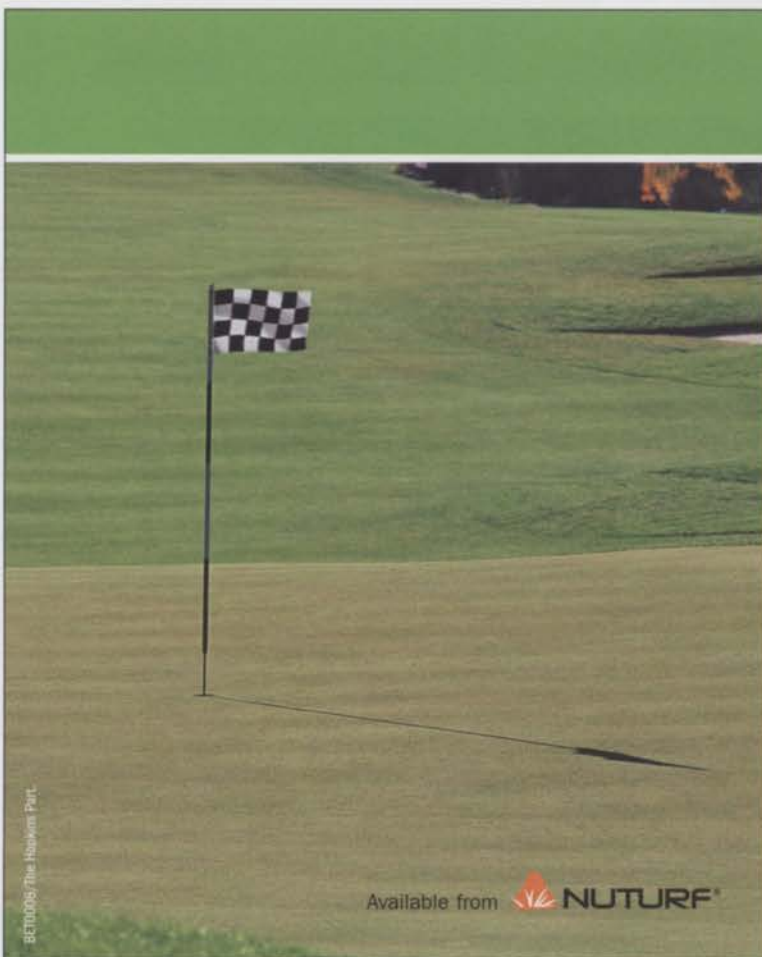
The arrival of the 4x4 Utility coincides with the expansion of Club Car's utility dealer network. Among those to come on board include Darren Turner in Queensland who will assist Club Car expand its dealer network on the east coast of Australia. 🍌

BYWATER DEPARTS NUTURF

Matthew Bywater has stepped down from his position as technical manager for Nuturf. Bywater is taking time out of the industry for personal reasons and at this stage it is uncertain when he will make a return. 🍌

PULLMAN APPOINTED

Advanced Seed has appointed Rick Pullman to its sales team. Pullman previously worked with Turf & Irrigation for a period of 20 years, in which he filled roles as a sales representative, sales manager and in his last few years as manager. Pullman can be contacted on 0428 503 895. 🍌



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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.

MEMBER BENEFIT FOCUS

The **Next Generation**

TORO



The Australian Golf Course Superintendents Association and Toro Australia have 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.

"The AGCSA is proud to announce this initiative, which further demonstrates Toro's and the AGCSA's commitment to the future of our industry," AGCSA chief executive Steven Potts said.

Student members of the association receive all the normal benefits of membership, including access and discounts to the AGCSA's national turfgrass conference and roving workshop series. They also receive the AGCSA's flagship publication Australian Turfgrass Management magazine and fortnightly email newsletter Turf News. ▴





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

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- 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. 🌱



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Color Atlas of Turfgrass Weeds

By L.B. McCarty, J.W. Everest, D.W. Hall, T.R. Murphy and F. Yelverton (Ann Arbor Press, 2001)

Maintaining today's modern, multi-million dollar turf complexes at the desired level of aesthetics requires knowledge of specific weeds, their biology and available control measures.

This book, Color Atlas of Turfgrass Weeds (yes, it is another publication from our American cousins), aims to do just that and does so admirably.

The 270-page guide has been compiled by no less than five knowledgeable experts - Bert McCarty, John Everest, David Hall, Tim Murphy and Fred Yelverton - and provides a comprehensive source of information on problematic turfgrass weeds.

The body of the text is broken down into grass and grass-like plants and broadleaf plants with each page dedicated to a specific weed.

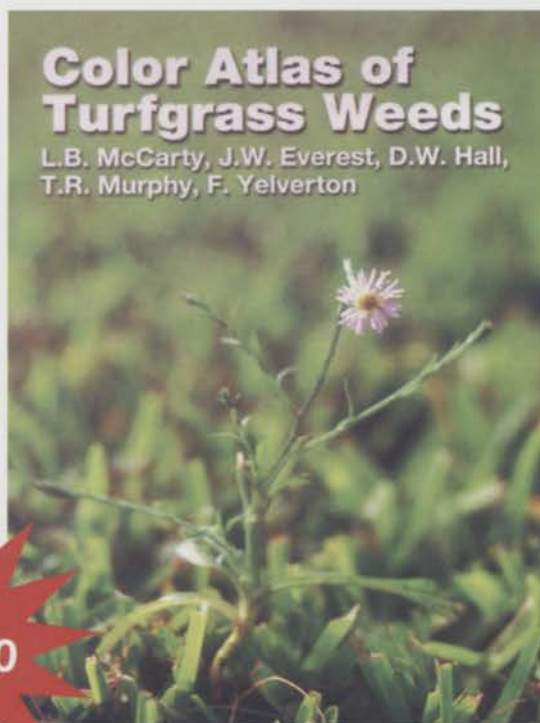
The listing is in alphabetical order according to the plant's scientific name and illustrated by numerous colour photographs that enable the

superintendent or turf manager to make easy and quick identification.

Each weed is described along with its means of propagation and distribution (not just in America) while the authors also provide very useful information on control strategies (note that some of the products mentioned are only available in the US).

At the rear of the book there is a glossary of taxonomic terminology and an index to common and scientific plant names.

The appendix contains tables on turfgrass species' respective tolerances to various pre-emergence and post-emergence herbicides. Also listed are efficacy ratings for various pre-emergence and post-emergence herbicides for troublesome grasses, broadleaf weeds and sedges. ♣



Color Atlas of Turfgrass Weeds

L.B. McCarty, J.W. Everest, D.W. Hall, T.R. Murphy, F. Yelverton

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GCSAQ

Finally we have had some winter weather to slow down the rate of grass growth. The rain has been virtually non-existent and plenty of courses are getting that dry and dusty look with a good dose of dormancy thrown in.

While we have seen a couple of frosts at Tewantin-Noosa, Justin Kelly at Gainsborough Greens at one stage had 11 in a row with one lasting until 10:30 am. It brought back memories of the Arctic conditions during the 20th Australian Turfgrass Conference in Melbourne.

While the weather down there was pretty extreme, we managed to get around Metropolitan on the first day with only a light shower of rain. However, some of the Queensland contingent did get a good taste of Melbourne weather on the turf tour to Moonah Links, The Dunes and Patterson River, where Michael Riordan led the group further onto the course as the rain got heavier.

The conference itself was very worthwhile with plenty of good speakers on a variety of relevant topics. The final panel discussion touched on some issues that could have taken up a session by themselves.

While the educational sessions were a highlight, the tradeshow provided an opportunity to come face-to-face with the suppliers to our industry. It was one of the best I have attended and after hours of working your way past each of the stands it was still possible to walk through again and find something of interest.

Congratulations are due to the AGCSA team on organising a top event.

While the conditions are now slowing grass growth, a number of superintendents are taking the opportunity to get away for a well-earned break.

Some have taken time after the conference to see more of Victoria; Gary Topp stayed on to sightsee and visit friends, Pat Pauli is keen on the Great Ocean Road, while Ben Tilley has headed to the snow. Rodney Cook has been soaking up the sun with the family in Noosa before a trip back to Stanthorpe, and a string of southern visitors have been making their way up the coast.

Upcoming events in Queensland include the country turf tour. The trip will take in Maryborough, Tin Can Bay and Hervey Bay and is sure to open a few eyes to some of the great work being done by fellows off the beaten track. Last year's trip uncovered some real gems. This year we will have a guest speaker as well.

The AGM is on 23 August at Pacific Golf Club where host superintendent Graham Sims will no doubt have the course in immaculate condition for the hotly contested golf championships. This is the big one, so if you only get to one field day for the year, make it this one.

The Queensland Futures of Golf Conference is on in August at Hyatt Coolom and should provide some interesting food for thought as it hopes to create some dialogue between the various golf bodies for future collaboration to advance the industry. Other states and national bodies are interested in the concept and this should provide a starting point for some improvements.

The GCSAQ Turf Research Fundraiser Golf Day will be held at North Lakes this year where Scott McKay has been managing Tifeagle greens and keeping the course at the leading edge in the competitive Queensland market.

This will be a return visit and should be a contrast to when we held the day at this venue two years ago on its opening day. With the growth in trees and the maturing of the site the 8 November teams event is one I am looking forward to after taking home a prize last year.

As time is pressing, I will leave the gossip until next time. Best wishes. 🍷

Jon Penberthy,
President, GCSAQ



GCSAWA

Well another president's report has come along and I'll kick this one off by congratulating one of WA's brightest young blokes for his tremendous success at the 20th Australian Turfgrass Conference in Melbourne.

Craig Webley, who has recently been promoted to leading hand at Lakelands Country Club, took the honours in the AGCSA Graduate of the Year award. Craig did a fine job of representing the GCSAWA and the WA turf industry as a whole. Craig's selection as national winner comes on the back of being named as the GCSAWA's Best Indentured Apprentice.

The announcement of Craig as winner was met with huge cheer and applause where upon he graciously accepted the award. I must thank all those WA guys who attended the awards presentation ceremony and showed their support for a promising new superintendent in the making.

Craig displayed all the fine qualities we expect of a professional turf manager and I'm sure when you meet him you will agree. Anyway that's enough smoke blowing - well done Craig and congratulations to fellow award winners, Ray Keane, Peter Schumacher and David Warwick.

Congratulations also to the AGCSA team for another hugely successful national conference, and the largest ever delegate turnout; it is indicative of the hard work and dedication invested by you all over the past years.

Congratulations to Jeff Gambin on his appointment as AGCSA president along with Jon Penberthy as new Board member. Lucky you, Jeff! Good luck controlling Messer's Black and Penberthy! Additionally, I would like to thank Mark Couchman for his fine leadership as outgoing AGCSA president and wish him all the best.

Closer to home, our 2004 Margaret River Conference is getting closer and I look forward to the planned events down south. If any interstate comrades are planning a trip west around 8-10 August speak to your state president for information concerning this event.

Other events to put in the diary include the John Deere Teams Challenge at Bunbury Golf Club on 2 August and the Golf Masters Cup at Melville Glades Golf Club on 28 September. Melbourne Cup Day will be at Joondalup Country Club on 2 November.

In recent talks held with Steve Dargie (Challenger TAFE), a new part-time course has been developed for turf managers and secretary managers based around environmental management systems. From early indications this course looks very interesting and the knowledge gained may serve as a vital reference for better understanding and managing your business' impact on the environment.

Speak to Steve or one of the GCSAWA reps for more information as a few of us are already enrolled. Course participants will be accredited with units over three competencies in the new training package.

A funny thing just happened. When I did a spell check on this article it highlighted Jon Penberthy's surname as a mistake. It asked me if I wanted it changed to 'puberty'. Jon Puberty - who knows? 🍷

Brad Sofield
President, GCSAWA



NSWGCSA

The 20th Australian Turfgrass Conference in Melbourne was an extremely well organised and informative event for all those that participated. The entire staff of the AGCSA demonstrated a truly professional representation and should be duly congratulated for their preparatory and execution skills for this memorable event.

In particular, I'd like to congratulate chief executive Steven Potts, who, in such a short period of time has exhibited a magnificent array of personal qualities and managerial skills to coagulate not only the events of the Melbourne conference, but our association as one unit.

A huge thank you is in order to Mark Couchman from all the NSW superintendents for his instrumental role in ensuring that the AGCSA maintained its unblemished and professional image during his seven year term as president and treasurer. We wish Mark the best of luck.

The new-look AGCSA Board has been met with rousing approval from the NSWGCSA. Congratulations to Jeff Gambin on his long awaited and fitting appointment as AGCSA president. The entire state of NSW has all the confidence in the world in Jeff's ability to lead the association, and he can expect and will receive our undivided support throughout his term as president.

I'd also like to take this opportunity to congratulate Jon Penberthy on his appointment as director and the reappointment of Martin Greenwood, and our very own federal scout and 'Poetician' Martyn Black. The AGCSA is in great hands and can only move forward with the undeniable expertise of these scholars at the helm.

The conference was a great opportunity to mix with superintendents on a social and professional level from all around the country. It was delightful to catch up with superintendents from other states and discuss the range of issues that currently confront our industry at a national level.

I personally found it astonishing to note the degree of discussion that centered on environmental and OH&S issues. However it was pleasing to witness that many delegates flocked to the talks associated with core turf quality issues such as nutrition and disease.

Congratulations to David Warwick (Avondale Golf Club) and Peter Schumacher (Elanora Golf Club) for receiving their respective awards. It was pleasing to watch superintendents from NSW receive this prestigious and honorable recognition.

Well done also to the "Legends" for taking out the touch football competition in 2004. Our captain Guy Thomas steered us to three narrow but extremely well planned wins to keep the young-uns at bay (*No thanks to your insipid contribution Mr Easton - Ed*).

While we provide a Distinguished Service Award, I'm still of the firm opinion that our industry (whether at state or national level) needs to recognise the professional stalwart superintendents our trade has produced over the years, such as the likes of Bob Chessell, Pat Henry, Bruce Caruthers, Bill Hopkinson and a myriad of others from all states that have devoted their entire livelihoods to this industry.

While it is difficult to officially award everybody's efforts, it would be a tragedy to witness these people fade out of the industry without the due recognition they deserve.

This matter will certainly be a topic of discussion I will raise at the next state presidents meeting.

The next NSWGCSA gathering will be our ever-popular Cypress Lakes Golf Club Ambrose event.

A full field is expected for this spectacle and we're more than confident Merv will produce

the goods on and off the course once again. Martyn Black will be a certainty to commence the day's proceedings with his "Inside Thongs Outside" (a state anthem) and then it will be on for young and old.

My prediction for the Cypress Lakes day is as follows: Merv will knock off the long drive (Scenario - a 120m cross-handed drive off the tee, 120m stride with ball in pocket, a 15m throw, and two left foot kicks that leave the ball one-metre past the previous unsuspecting contestant. Sign card).

He'll also win the nearest the pin with the third shot of his fourth ball after trying to chat up the skirt on the free car hole. After signing his card 32 minutes after everyone else, he'll pocket the inconspicuous 5th and last prize that will be miraculously three times better than the 1st prize.

The moral of the story is: 'When Boss Hog runs the show, he wants to take home the bacon.'

Don't forget to pencil in the AGM at Muirfield Golf Club on 6 September. Keep smiling. 🍷

Craig Easton,
President, NSWGCSA



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NZGCSA

Welcome to the first regular column by the New Zealand Golf Course Superintendents Association. I would like to thank the AGCSA and Australian Turfgrass Management for letting our association take this opportunity to have our voice heard.

Many will no doubt have heard or read about the weather events that took place in New Zealand in February which affected the lower half of the North Island. The region received more than its share of unseasonable rain, with totals close to 300mm in a 24-hour period. This was followed up almost immediately by another storm which brought gale force winds as opposed to rain, bringing down trees and power lines.

Few, if any, golf clubs in the area were not affected during this period whether it was from flooding, rivers rerouting or numerous trees being blown over. A couple of courses lost large areas of their courses and will struggle to remain as 18 hole operations.

The fact that most clubs were able to open almost immediately after the flood waters receded is testimony to the volunteers that assist many of our superintendents who get by with minimal staff numbers.

In June I had the privilege of attending the 20th Australian Turfgrass Conference in Melbourne. The highlights for me were the keynote speakers, particularly Jim Moore who spoke about the latest changes to the USGA greens specifications; it was both humorous and enlightening.

The other highlight was the sand belt turf tour on Friday. After hearing so much about courses like Huntingdale, Metropolitan and Royal Melbourne it was a great experience to finally be able to walk them.

Probably the only low was a New Zealand agronomist speaking on thatch management in New Zealand. I hope you all read between the lines and realised that not all superintendents are controlled by their clubs to the point where they will sacrifice turf quality because of club and player demands. Often with the smaller clubs in New Zealand it is because of financial restraints that renovation practises are not undertaken as often as they should.

While in Melbourne it was great to meet with AGCSA representatives, including chief executive Steven Potts and newly elected AGCSA president Jeff Gambin, to discuss the turf industry in both countries. I wish Jeff well in his tenure as AGCSA president.

For those that don't know, the NZGCSA is made up of eight regional associations who hold their own field days/training days for their own members. The NZGCSA is made up of superintendents and other course staff members who want to have the advantages of belonging to a national organisation and to have access to benefits such as awards and a bigger information base, much the same as being a member of the AGCSA.

We are an education-based organisation that oversees development of trainees. We have a representative on the Sports Turf Industry training organisation (STITO) board and hold the STITO moderation contract. We hold a combined sports turf conference, which encompasses golf, cricket, bowls, sportsfields and racing.

The next conference is in Christchurch in June 2005. Hopefully there will be no clash of dates with the AGCSA conference as there was in 2003 so we can entice a large Aussie contingent to come across similar to the 40 or so Kiwis that were in Melbourne.

For more information on the NZGCSA visit our website www.nzgcsa.org.nz. I look forward to seeing you in New Zealand sometime. 🍷

**Brett Burgess (Taupo Golf Club),
President, NZGCSA**



SAGCSA

A strong South Australian contingent attended the recent 20th Australian Turfgrass Conference in Melbourne. It was very pleasing to see the state so well represented.

More to this was the fantastic effort in our (Sellar-less) golf team in winning the overall teams' event at Metropolitan Golf Club. I am lead to believe that this is the first time South Australia has won the event. Top effort chaps!

The six members of the team were Daryl Sellar, Ivan Swinstead, Wayne Dale, Kym Traeger, Stephen Newell and Richard James.

The only down side to the day was the inability of Sellar to successfully defend his AGCSA Golf Championships title. I can assure everyone that a state inquiry is well underway into this 'Big Philou' like incident, with the alleged nobbling theory having some genesis north of the Murray.

A good number of members attended the SAGCSA AGM which was held in early June at Riverside Golf Club. Office bearers for the coming year were elected and they are;

President: Peter Harfield (Blackwood Golf Club)
Vice President: Daryl Sellar (Glenelg Golf Club)
Secretary: Stephen Newell (Kooyonga Golf Club)
Committee: Brian Cooper (Mt Osmond Golf Club), Mal Grundy (Murray Bridge Golf Club), Ivan Swinstead (Tea Tree Gully Golf Club) and Jeff Kaines (Royal Adelaide Golf Club).

We, as a committee, are eager to hear from any members with input on industry topics so as we can try to best represent members' interests. Please feel free to contact any of these committee members.

Water restrictions for mains water have now been with us for the best part of 12 months. However, the next issue for turf managers to deal with in this state is going to be restrictions regarding the use of all water (river, bore etc...)

Our committee is holding talks with the Department of Biodiversity, Conservation and Land Management regarding this vital issue with an outcome likely in the near future, so please make contact with your local committee member to keep abreast of this vital issue.

Upcoming diary dates include the annual superintendents/club managers seminar which will be held in Renmark on 17-18 August.

The September meeting will be held at AAMI Stadium with host for the day Jamie Butterfield. This will be a joint meeting with the turfgrass association and guest speaker will be Kevin Handreck, the author of the very popular *Growing Media for Ornamental Plants and Turf*.

Kevin has a wealth of knowledge on this area and it should prove to be a most informative session. As there will only be limited places, it is a case of first in best dressed, so RSVP ASAP to book a seat. I look forward to seeing you there. 🍷

**Peter Harfield,
President, SAGCSA.**



TGAA (ACT & Surrounding Region)

Firstly I would like to take this opportunity to thank all the people who were involved in the implementation of this year's annual seminar and also to those who attended and took part as speakers, delegates and representatives.

Although it's too early to compile figures, feedback and results as yet, early signs indicate a very successful day with an excellent response. Anyone who wishes to have a copy of the seminar program/proceedings, please contact Keith McIntyre on (02) 6231 4721.

The ACT Turfgrass Association of Australia would like to congratulate all of the finalists who were in the running for the 2004 Globe/TGAA Study Award. Out of all the students who have completed their studies in turf management, four finalists were short-listed.

These were Ryan Pritchard, Ben Serafin and Luke Higgins, but on the day it was Chris Tosic from Canberra North Bowling Club who took the prize. Apart from being a great achievement, Chris also attended the 20th Australian Turfgrass Conference and tradeshow in Melbourne. Well done Chris.

Our benevolent president Gary Dawson was lucky enough to find the time to travel to the United States to work as a volunteer at Shinnecock Hill Golf Club on Long Island for the US Open. Gary was among seven other Aussies working to prepare the course.

The Canberra Institute of Technology (School of Horticulture), in Weston, ACT, will be conducting SMARTrain Chemical user and handlers courses equivalent to level three certification. This is a must for everybody in the turf/horticultural industry that transport, handle, mix or apply chemical pesticides. Please contact CIT Solutions for information on (02) 62074444.

In addition to this, for those within the industry who have had previous chemical training, there is a bridging course running from time to time. It runs for six hours and covers the AQF level three certification.

On a final note, visit the website www.parks-leisure.com.au for information on a water management seminar being held on 22 September by Parks and Leisure Australia, or phone (03) 5444 1763.

Till next time, agrostologists. 🌱

**Justin A K Haslam,
Committee,
TGAA ACT & Surrounding Regions**



TGAA NSW

Greetings fellow turf cohorts and associates. Well, all the big footy events have been happening recently - the Wallabies, State of Origin. Combine that with a cricket test in Darwin and you have been provided with a huge menu of top class sporting action.

But back to the local scene, it is very depressing to see a lot of sporting surfaces - league, union and golf - suffering the long term effects of what is currently one of our worst ever droughts.

Once lush playing surfaces are now barren eroded patches of dirt, very tough for players and very tough for the turf manager to produce surfaces suitable for play that have probably been taken for granted in the past.

Wise use of water both in the past and the future will teach us all about the productive use of this precious asset we sometimes possess. It is great to see that the TGAA ACT has conducted a seminar dealing with a lot of water related issues. This is vital information for all turf managers.

For all those people who attended the recent 20th Australian Turfgrass Conference, the great array of interesting topics covered would have provided plenty of food for thought.

A lot of familiar faces were spotted in all sorts of interesting places during the week (I won't name names) and congratulations must go to the organisers.

Speaking of info-packed seminars, we are having our own annual seminar coming up on Wednesday, 11 August at the Sydney Showgrounds, Homebush Bay.

The day's topics include; herbicides for sportsfields; golf tournament preparation; innovations in renovation equipment; oversowing and maintenance of cool-season grasses; insect pest management in turf; and sports law and liability.

To top off the day our guest speaker is former cricket great Greg Matthews. 🌱

**Graeme Logan
President, TGAA NSW**



TGAA VIC

In what is traditionally a quieter time for us all, I am finding many members are surprisingly busy in planning for the upcoming spring/summer.

It was encouraging to see many members who were able to take advantage of the excellent program at the 20th Australian Turfgrass Conference in Melbourne.

Bob Carrow's presentation on water conservation was not only enlightening, but also highlighted the fact that recent presentations at TGAA Vic seminars were right on the money as far as content and relevance go. The best presentation of the conference, for my money was that given by David Aldous and John Neylan on turf surface injuries and safety audits. Not only was the presentation informative, it also struck at the heart of what are some of the major concerns for sports surface managers and sportsfield users universally.

There was some very constructive feedback during the question and answer sessions. Members expressed the opinion that the current system of weekly safety reports does not function efficiently or fairly, and places undue stress on members.

Another side to this discussion is that currently, junior sports coaches are required to report on, and by extension, to make a valued judgement of, the suitability or otherwise of a turf surface for competition play on a weekly basis, in the form of ground assessment forms.

This is quite clearly unacceptable, as in many instances the people who are junior sports coaches are not adequately trained in this field of turf assessment. In addition, coaches could then be put in the impossible position where they feel that their ground assessment report result should close the field to play for that day.

The Cricket Wicket Seminar was again well attended with excellent speakers. Members showed at question time that this remains a popular part of their annual program.

Other issues continue to present. Anthony Uhr Henry is involved in preparing information for the establishment of a national turf body, as well as the presentation of national education standards for level three (apprenticeship) training in turf management.

Members are advised that the State Government White Paper on Water Use has been released for community debate. Members are encouraged to become familiar with this document. In particular, Chapter Five, page 99 deals with draft permanent water savings for Melbourne. An industry body is working toward drafting a suitable response to this document.

The TGAA-Vic AGM is being held on 17 August. We hope to see as many people as possible. Have a think about a role on a sub committee perhaps, or just come along with some feedback. 🌱

**Jim Marchbank
Vice President, TGAA (Vic.)**



VGCSA

With the 20th Australian Turfgrass Conference concluded, it must be stated that despite the weather issues in Melbourne it appears the turf industry in this country views the conference down south as the one to attend.

I would have to agree with David Scaife (Bonnie Doon Golf Club) who made the comment at the AGM that it's like the Olympic year for the turf industry whenever the conference comes to Melbourne.

The AGCSA must also be commended for the format of the week and in particular the relevancy of the subject matter the guest speakers presented. If anyone was wondering if water conservation was going to be the turf industry's major hurdle this century, think no more.

Congratulations to the finalists of the three annual awards who once again proved that a professional approach is the way forward. Also congratulations to Victoria's own Ray Keane who was bestowed the AGCSA Distinguished Service Award.

As stated in my previous report, a new-look VGCSA committee has now been formulated. The board is comprised of;

President:

Michael Picken (*Riversdale Golf Club*), meetings coordinator

Vice President:

Mark Prosser (*Commonwealth Golf Club*), calendar coordinator

Treasurer:

Brett Balloch (*Anglesea Golf Club*), golf captain

Secretary:

Glenn Davie (*Freeway Golf Club*), newsletter coordinator and VGA Rep

Committee: Adam Robertson (*Kew Golf Club*), education coordinator; Michael Freeman (*Huntingdale Golf Club*), membership coordinator; Peter Jans (*Sanctuary Lakes Golf Club*), newsletter assistant; and Trevor Uren (*Devil Bend Golf Club*), website coordinator.

On 5 July, the VGCSA hosted its annual superintendents/managers day at the Barwon Heads Golf Club. The day was a great success and helped foster relationships between the two associations. Footy identity Robert Walls was guest speaker on the day and thanks to Club Car for their support of this meeting.

To finish, I would like to pass on our appreciation to Malcolm Hawker, formerly of Hamilton Golf Club, who has decided to move on after many years of devoted service to his club and the VGCSA. We wish Malcolm all the best. 🌱

**Michael Picken
President, VGCSA**



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