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Turfgrass



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MANAGEMENT JOURNAL

2012 AGCSA/STA Award Winners

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Steve Marsden
Ben Tilley
Scott Roberts
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COVER:

Cape Kidnappers, New Zealand:

The stunning 15th hole at Cape Kidnappers which literally drops off the East Coast of New Zealand's North Island. Cape Kidnappers course superintendent Steve Marsden received the 2012 AGCSA Claude Crockford Environmental Award at the recent Australian Turfgrass Conference.

Photo: Gary Lisbon

(www.golfphotos.com.au)



PHOTO BY LUIS MATA

Understanding golf's biodiversity value

6

In late 2011, researchers from the University of Melbourne embarked on a groundbreaking three-year project to investigate the biodiversity value of golf courses. In this first update, ATM looks at the goals of the project, while visiting Spanish ecology student Luis Mata looks at the initial insect surveys which have been conducted at the 13 Melbourne-based golf clubs involved in the project. As part of this lead feature, ATM also looks at the first round of grants handed out by the Federal Government's Biodiversity Fund.

FEATURES

112th US Open - Olympic odyssey

12

Luke Spertalis, Simon Blagg and Stephen Mallyon were among 100 course management volunteers from 16 countries to descend on The Olympic Club in San Francisco for the recent 112th US Open.



MELBOURNE 2012

Rossi makes his mark in Melbourne

30

The Melbourne Convention and Exhibition Centre played host to the 28th Australian Turfgrass Conference and Trade Exhibition in early June. ATM reviews what was a memorable week for turf managers in the Victorian capital.

Transcending limitations

18

In Volume 14.3, Cameron Thompson recounted his fascinating journey in golf course management which has taken him all over the world. Now director of agronomy for IMG in Asia Pacific, in this follow-up article he looks at this diverse role and examines what it takes to work in the Asian golf industry.



COLUMN

Grass-roots with John Neylan Drought? What drought?

24

Given the levels of precipitation many parts of the country have experienced in recent times, water management planning would probably be well down the priority list for most course superintendents and turf managers at present. However, as ATM columnist John Neylan writes, such complacency could come back to bite them.

2012 AGCSA Awards

44

ATM profiles the winning Class of 2012 – Steve Marsden (Claude Crockford), Ben Tilley (Excellence), Scott Roberts (Academic) and Graduate of the Year recipients David Canterbury (AGCSA) and Rory Bairnsfather-Scott (STA).



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John Neylan and Andrew Peart present the major results to emerge from the three-year AGCSA bentgrass varieties trial (HAL Project TU08002) which came to an end in March 2012.

OPINION

Don't mention the war!

The Pulse quizzes superintendents whether they have altered their *Poa annua* control strategy in recent times and what they have found works and doesn't work at their course.



Also in this edition...

Foreword Thinking	4
Regional Profile – Glenden Golf Club, QLD	56
News	60
Around the Trade	62
AGCSA Book Shop	64
Turf Producers	66
State Reports	68



Contributors to Australian Turfgrass Management Journal Volume 14.4 (July-August 2012)

Martyn Black (Castle Hill CC); Simon Blagg (Roseville GC); Peter Boyd (NZGCSA); David Canterbury (Adelaide Shores); Chris Chapman (STA NSW); Neil Craig (Australian Golf Course Management); Wade Cranston (Glenden GC); Glenn Cross (Mt Lawley GC); Frank Dempsey (TAFE NSW); Mal Durkin (Moore Park Golf/Centennial Parklands); Peter Frewin (AGCSA); Brendan Hansard (Twin Creeks); Luke Harris (Ranfurly GC); Steve Hewitt (VGCSA); Matthew Holmes (Turf Australia); Danny Hull (STA ACT); Andrew Kolbee (STA QLD); Stephen Lewis (Royal Hobart GC); Gary Lisbon (Golf Photos); Peter Lonergan (GCSAQ); Stephen Mallyon (Roseville GC); Steve Marsden (Cape Kidnappers); Luis Mata (University of Barcelona, Spain); Ian McKendry (STANZ); Matthew Merrick (Heritage Seeds); John Neylan (Neyturf); Andrew Peart (AGCSATech); Scott Roberts (Sebastopol BC); Eddy Ruis (Portland GC); Sam Sherriff (SAGCSA); Luke Spatalis (Royal Melbourne GC); Simone Staples (AGCSA); Ben Tilley (Headland GC); Cameron Thompson (IMG); Dr Caragh Threlfall (University of Melbourne); Brad Tucker (Whittlesea GC); Jim Vaughan (Turf Queensland); Mike Walker (STA VIC); David Warwick (Avondale GC); Darren Wilson (Wembley Golf Complex); Jenny Zadro (STA NSW).

Something to be proud of

As I sit and type this edition's preamble, I do so with a smile from ear to ear. No, it's not because England have just been bundled out of Euro 2012 on penalties – yet again – or the fact that the All Blacks are world champions – don't worry readers you've got another three and half more years before I let up. No, it's the simple fact that I have just finished reading my son's very first school report.

Okay, granted, he's only in preps and comments like 'easily distracted', 'could apply himself a lot more' and 'Why, in heaven's sake did he choose math!' (which regularly marred my old reports) would be unlikely, but to read about his progress and achievements in just his first six months made me goddamn proud. (To be brutally honest though I was inwardly high-fiving myself more when, on the way to the shops the other day, out of the blue he coolly asked mummy to put on daddy's Black Sabbath CD instead of the horrid 80s CD he has been brainwashed with for the past six years. Now that's my boy!)

We all have something to be proud of and delegates to the recent 28th Australian Turfgrass Conference in Melbourne should have returned to their respective facilities with a renewed sense of pride in their industry having heard of some of the goals their colleagues are continuing to kick day in, day out. For me there were two talks in particular which stood out and highlighted in different ways the skill and professionalism that is the hallmark of today's modern turf manager.

The first was Michael Bradbery's presentation on the redevelopment of Manly Golf Club. The sheer scope of this \$13.5 million project has to be seen to be believed and it has consumed Michael, his staff and the club for the past 11 years. Sure he might be giving his counterpart at Avondale Golf Club a run for his money in the grey hair department as a result, but the meticulous manner in which Bradbery has dedicated himself to all facets of this project has been truly remarkable.

The list of challenges and hurdles Bradbery has had to overcome would have proven the death knell for any lesser superintendent and are too numerous to include here, but if ever there is anyone who now deserves to sit back, relax and watch the grass grow with a sense of pride – the redevelopment finished this past autumn – then it's Bradbery. Do yourself a favour and get a hold of this year's Conference Proceedings to get a taste of the works that have gone at Manly – then again it might leave you feeling just a tad inadequate!

Likewise Adrian Black and his team at the Melbourne Olympic Parks Trust precinct. The End Users Forum conducted by Adrian in the Sportsfield stream provided a fascinating insight into the management of one of this country's largest and most diverse sporting facilities. To get an idea of the logistics behind running a precinct that hosts everything from AFL training, international rock concerts, a Grand Slam tennis tournament, to week in, week out elite level competitions such as the NRL, Super 15 and A-League – and then chuck in a \$500 million precinct redevelopment for good measure – gives you a new-found appreciation of the truly dynamic role turf managers play nowadays.

If there is one thing that you can always be guaranteed of, it's walking away from the annual conference with renewed vigour and affirmation of the many benefits our industry provides to local communities. Whether it was listening to the large scale projects that Michael and Adrian have been or are involved with, or hearing from fellow delegates some of their recent achievements, I trust you all took something away from your time in Melbourne which will ultimately spur you and your facility on to bigger and better things. Enjoy the

read...



Brett Robinson, Editor



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Accordance reached during successful International Summit



Main photo: Representatives from superintendent and greenkeeper associations in Europe, the US and New Zealand made the journey to attend the International Summit held prior to the recent 28th Australian Turfgrass Conference



Well, the dust has settled from what was a very successful 28th Australian Turfgrass Conference and Trade Exhibition. Those that attended have been very complimentary about the event, in particular the quality of speakers. I would like to take this opportunity to thank all the AGCSA staff for doing a fine job in organising what was a great week.

In the days leading up to the conference, the AGCSA hosted the International Summit with many representatives from overseas superintendent and greenkeeper associations converging on Melbourne to discuss issues relevant to the golf turf industry.

As well as full representation from the AGCSA Board, as well myself and AGCSA HR and Best Practice Manager Daryl Sellar, the summit included the following international guests:

- **Jim Croxton** (chief executive, the British and International Golf Greenkeepers Association)
- **Philip Russell** (assistant to the Director - Golf Course Management, The R&A)

- **Dean Cleaver** (executive officer, Federation of European Golf Greenkeepers Associations)
- **Sandy Queen** (president, GCSAA)
- **Rhett Evans** (chief executive officer, GCSAA)
- **Lars Tveter** (president, Norwegian Greenkeepers Association)
- **Peter Boyd** (president, NZGCSA)

I am pleased to report that the two-day meeting was a huge success with many topics discussed and more significantly agreement made on some important subjects. Accordance was reached on a global position paper regarding sustainability and the environment and also some agreement on information and intellectual property sharing – more information will follow in the coming months.

The summit concluded with a formal dinner hosted by the AGCSA in partnership with Syngenta at the Grand Hyatt. Our international guests got up close and personal with some of our country's famous fauna, including crocodiles, koalas and a kookaburra. Many subsequently attended the



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conference, while a number also took the time to play a couple of Melbourne's famous sandbelt courses. All guests spoke glowingly of the courses they played and the overall hospitality shown by everyone during their short stay Down Under.

AGCSA CODE OF ETHICS

I thought I would also devote some space in this column to highlight a very important document that all AGCSA members should read - the AGCSA Code of Ethics. This code was established early in the association's history to act as a guide to appropriate conduct for the members of the association and to promote a high level of professional standards of service and conduct among members. It reads:

- Each member shall maintain courteous relations with the association and their fellow members.
- Each member shall recognise and discharge all of their responsibilities and duties to the best of their ability and knowledge, and shall apply sound principles of business management in all their professional endeavours.
- Each member shall maintain the highest standards of personal and professional conduct in order to reflect credit upon and add stature of the association and the profession of golf course management.
- No member shall provide professional or consulting services (paid or unpaid) to another without first notifying the golf superintendent (AGCSA member) associated with the club.
- No member shall seek to obtain employment or career advancement by applying for or otherwise seeking to secure a position already filled by a member of the association.
- Where a member is aware that an employment vacancy for a golf superintendent exists, every effort should be made by the member to encourage the potential employer to retain a golf superintendent who is a member.
- No member shall offer any endorsement on behalf of the association, exploit their affiliations with the association in connection with any endorsement, or otherwise suffer the name, goodwill or reputation of the association to be mentioned in connection with any endorsement without the written approval of the association.
- Each member shall support and actively participate in the efforts of the association to improve public understanding and recognition of the profession of golf course management.
- When any member becomes aware of any wilful violation of this code of ethics, that member shall report such violation to the association.
- Each member is to carry out their duties in accordance with all relevant state/territory or federal laws pertaining to their vocation.

Please feel free to contact me on 0418 593 072 or peter@agcsa.com.au should you have any issues, concerns, suggestions, or feedback. It is always welcome. 🌱



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In late 2011, researchers from the University of Melbourne started work on a groundbreaking three-year project which will investigate the biodiversity value of golf courses. In this first of a series of updates, ATM looks at the goals of the project, while visiting PhD student Luis Mata looks at the initial insect surveys which have been conducted at the 13 Melbourne-based golf clubs involved in the project.



Australian Research Centre
for Urban Ecology



In 2011 the Australian Golf Course Superintendents' Association (AGCSA), in conjunction with the University of Melbourne, announced that it was establishing a joint research project with the objective of improving the understanding of biodiversity conservation and carbon sequestration provided by urban green spaces, in particular golf courses.

Jointly funded by the Australian Research Council (ARC), the Australian Research Centre for Urban Ecology (ARCUE) and the AGCSA, the three-year project got underway in late 2011 and has three specific aims:

- To quantify the carbon stored and sequestered in the vegetation biomass and soils of urban golf courses according to management intensity and age;
- To quantify the biodiversity benefit of urban golf courses in comparison to the adjacent residential urban areas; and
- To develop, or apply, spatially-explicit models to predict the carbon and biodiversity benefit of urban golf courses, parks and gardens, and to then validate the predictive capacity of these models.

Thirteen golf courses throughout south-east Melbourne agreed to take part in the study, ranging from newly established courses through to golf courses that have been on their existing site for more than 100 years. The courses are located from Brighton down to Frankston and include:

Brighton GC	Spring Valley GC
Victoria GC	Kingswood GC
Woodlands GC	Rossdale GC
Sandhurst Club	Amstel GC
Ranfurlie GC	Centenary Park GC
Peninsula Country GC	Settlers Run G&CC
Frankston GC	

To date researchers have surveyed:

- **Bat biodiversity:** Researchers installed devices to record night-time activity of insect-eating bats;
- **Insect biodiversity:** Researchers used three methods to capture diurnal and nocturnal insects, including pan trapping, sweep netting and light trapping (see more on this below).

Over the spring and summer of 2012-2013, researchers will continue with the above surveys as well as look at:



PHOTO BY LUIS MATA

- **Bird biodiversity:** Researchers will visit each golf course 4-6 times a year to record birds observed based on sightings and song;
- **Vegetation:** Researchers will visit each golf course to map and record plant species and vegetation communities present;
- **Soil sampling:** The research team will collect soil samples from throughout the golf course from wooded areas, roughs, fairways and greens.

This extensive project aims to provide the golf course industry with a detailed and predictive understanding of the biodiversity value their urban green spaces provide. The research team is led by University of Melbourne's Dr. Stephen Livesley and also includes Dr. Amy Hahs, Dr. Caragh Threlfall, Dr. Nick Williams and Prof. Nigel Stork. Results of the insect surveys undertaken so far are presented below by Luis Mata, a visiting PhD student from the University of Barcelona, Spain.

PLAYING A ROLE IN INSECT CONSERVATION

Australia is a continent that has fascinated biologists for centuries. For many, this is directly related to the

uniqueness of its plants, mammals and birds. Where else can you be amazed by the beauty of gum-trees, paperbarks and banksias? Where else can you see wallabies, enjoy the laughing calls of kookaburras, or the sulphur-crest of the cockatoo? However, despite sharing a fascination for Australia's unique animals, my true fascination and research interests are for the diversity of Australian insects!

In late 2011, I was lucky to join the University of Melbourne research team, as a visiting insect ecology PhD student, and be a part of this major scientific study into the biodiversity and carbon benefits provided by golf courses and other urban green spaces within our cities.

For me, one of the most interesting aspects of this project is the investigation of the link between golf course structure and management and insect biodiversity. This means that we will have an opportunity to learn more about how the management decisions related to golf course vegetation structure and vegetation elements may influence the biodiversity values within golf courses. This knowledge can then be used to guide management decisions that promote higher biodiversity values within golf courses.

But what do we mean by the value of biodiversity? And how does this relate to insects? Furthermore, how does insect biodiversity relate to 'ecosystem services' provided to the wider environment and community by golf courses?

The first thing to realise about insects is that some of them are herbivores and some are carnivores. Herbivorous insects can become 'pests' of valued trees, shrubs, crops, herbs and turf under favourable conditions. These insect pests are the ones we try to fight off with expensive and often ecologically unfriendly pesticides.

But many insect groups, such as assassin bugs, damsel bugs, ladybugs, mantidflies and praying mantis, are carnivorous, feeding principally upon other insects. This is fortunate as they are

Main photo: Assassin bugs, which are part of the heteropteran bug family, are predatory species characterised by their stout beaks. During the first collection season of the golf course biodiversity project, 80 different species of heteropteran bugs were found on the 13 courses involved in the project

Damsel bugs are economically important predatory species that act as natural pest control agents ►



PHOTO BY CHRISTOPHE QUINTIN

An example of an open grassland-type rough at the Peninsula Country Golf Club, one of the 13 courses that are part of the project. Predatory heteropteran bugs, including the damselfly bug, were found predominantly in open rough areas such as these



PHOTO BY LUIS MATA

in fact performing a service for us by keeping potential insect herbivore pests in check. This can be considered to be an 'ecosystem service', as it is one of the benefits people obtain from the environment. The common ecosystem services that insects can provide are derived from processes such as pollination, predation and parasitoidism.

Insects lay eggs, and sometimes in large numbers. These eggs hatch into larvae which will often feed voraciously on plant material. Most of the time insect eggs are laid upon leaves, branches or soil surface litter, but there are a special group of insects that lay their eggs inside the larvae of other insect species.

When these eggs hatch inside the larval host they eat their way out and eventually consume their host. This group of insects also provide an ecosystem service to us by keeping potential larval pests in check. They are known as the parasitoid wasps.

Now that you know them, you might value them more, as they are out there in the tree and shrub canopies and the grassy rough.

HIDDEN GEMS

Shortly after arriving last October, I got my boots, fluoro vest and sun hat and set off to gather evidence

for the presence of some of these important herbivorous and carnivorous insect species at the golf courses of Melbourne's sandbelt. In particular, I wanted to investigate their relationship to golf course vegetation structure and management.

Working with project research fellow Dr. Caragh Threlfall, we collected insects using three different methods on repeat visits to the 13 golf courses that had agreed to be part of this study. Insects were collected from areas of the golf course classed as 'rough' vegetation, sampling equally from rough areas below tree canopies and open rough areas. The three key methods we used to collect insects were:

- A sweep-net to gather insects from grasses, shrubs and low tree branches;
- Coloured bowls to attract and trap bees;
- Light traps set at dusk and dawn to attract nocturnal bugs and moths.

The first group of insects that we looked at, and that are the focus of my research, are the heteropteran bugs or 'true bugs'. The diversity, endemism and evolution of heteropteran bugs have been thoroughly reviewed in a recent report by leading Australian entomologists (Austin et al, 2004). Many heteropteran bug species are already well recognised as natural pest control agents.

Both parkland style golf courses (such as Centenary Park, pictured left) and bushland style courses (like Frankston Golf Club, pictured right) are involved in the three-year biodiversity and carbon benefit project



PHOTO BY LUIS MATA



PHOTO BY LUIS MATA



PHOTO BY CARLA KISHINAMI

In total we found 80 different species of heteropteran bugs in the 13 golf courses, which is a high number when you recognise that only 350 heteropteran bugs species have been collected in the whole of Victoria to date. Furthermore, this number of species was only found during one collecting season. We expect to repeat insect collection in the coming spring, so it is safe to speculate that the number of species will increase.

Of these 80 heteropteran bug species, nine were predatory species. The most frequent and abundant predator was the damsel bug, or according to the Finnish entomologist Odo Morannal Reuter, who named it back in the 19th century, *Nabis kinbergii* (see photo bottom right page 7). This predator bug species is a celebrity in Australia as it naturally controls the cotton bollworm, the most economically damaging pest of broad-leaf crops in Queensland and New South Wales.

Interestingly, predatory heteropteran bugs, including the damsel bug, were found predominantly in open rough areas, with a tall grassland-type vegetation structure, like that of Peninsula Country Golf Club pictured top on page 8). Therefore, from an ecosystem service perspective it might be beneficial to maintain and incorporate more of these grassland-type roughs into golf courses.

Globally, land-managers and decision-makers, including golf course superintendents, are showing an increased interest in, and understanding of, the values of biodiversity. By actively collaborating with the scientific community, these groups are taking the first steps towards a key target of the latest Convention on Biological Diversity which stated that by 2020, at the latest, people will be aware of



PHOTO BY LUIS MATA

the values of biodiversity and the steps they can take to conserve and use it sustainably. Hopefully, an old game will start using a new angle, one in which golf courses play an important role in insect conservation.

ACKNOWLEDGMENTS

The AGCSA wishes to thank the University of Melbourne research team, in particular Dr Caragh Threlfall, for their assistance in putting this article together. Luis Mata is a PhD student at the Department of Animal Biology, University of Barcelona, Spain. His research focuses on the ecology, biodiversity and conservation of insects. He was first exposed to golf here in Victoria, and this last summer played his first 9-hole game at Burnley Golf Course.

Luis Mata is pleased to acknowledge the invaluable support of Frances Alexander, John Geary, Amy Hahs, Steve Livesley, Mick McCarthy, Mali Malipatil, Briony Norton, Nigel Stork, Caragh Threlfall and Nick Williams during his involvement in the project.

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Above: Visiting PhD student Luis Mata uses a sweep-net to sample insects from golf course rough vegetation

Above middle: Mantidflies are nocturnal predatory species whose wings are characterised by numerous branched veins

Above left: Ladybugs are predatory beetles characterised by their colourful and contrasting body pattern

Adult female parasitoid wasps (right) are known to lay their eggs inside insect larvae. When these eggs hatch into larvae themselves (middle) they grow by eating their host larvae



PHOTO BY RICHARD NAYLOR



CARBON CONNECTIONS TO TEE OFF AT SYDNEY GOLF COURSES

Among the more than 100 NSW projects to receive grants in the first round is an environmental initiative driven by the Sydney Metropolitan Catchment Management Authority (SMCMA) which aims to link 'corridors of green' through some of Australia's most urbanised suburbs.

The project, titled Teeing-off Carbon Connections which will get underway in July 2012, has received more than \$1.8 million over four years and aims to facilitate the rehabilitation of select ecologically important habitats that connect regional and subregional biodiversity corridors.

Integrated revegetation, habitat protection and invasive species control projects will be undertaken on golf courses, public open space and in natural areas not actively managed for conservation to build resilience and safeguard Sydney's biodiverse carbon stores. A research partnership will also be established to audit and prioritise biodiverse carbon stores on golf course sites in the region.

SMCMA chairman Mark Bethwaite AM says the project has huge potential for golf clubs and the authority itself to realise the significant benefits golf clubs provide to the biodiversity of the urban environment.

"There are more than 50 golf courses covering some 3000 hectares within our catchment," says Bethwaite. "This provides an exceptional opportunity for the SMCMA and golf courses to work together to protect native vegetation and reduce the impact of weeds and invasive pests."

"What is also interesting is the opportunity for the SMCMA to find out more about the role of golf courses as carbon sinks and how they may be able to participate in the Australian Government's Carbon Farming Initiative. Golf courses are already considering this and the SMCMA project includes an important research component which will assist golf courses, among others, to understand the best way to proceed."

"What makes the SMCMA unique among the 13 NSW catchment management authorities is our focus on urban landscape issues. We work to build connections both between landscapes and between landholders. This project will allow us to offer training to golf course managers and ground maintenance staff on how to increase native biodiversity on their land."

"By working with a number of golf courses and councils we hope to build and link vegetation corridors extending right across Sydney. Birds and animals can use these corridors to move to new places to breed and feed, which helps the species to thrive."

Bethwaite says the SMCMA has already received expressions of interest for 13 project sites across Sydney, including five golf courses. Announcements of the successful golf course project sites will be made within the first six months of the project.

Golf to benefit from Biodiversity Fund

ATM looks at the first round of grants handed out by the Federal Government's Clean Energy Future Biodiversity Fund which were announced in early May.

An ecological rehabilitation and biodiversity study of Sydney golf courses and improvement works at Katherine Country Club in the Northern Territory to assist in the regenerating of the Katherine River flood plain were among more than 300 projects to receive funding from the first round of the Federal Government's Clean Energy Future Biodiversity Fund.

More than \$271 million in grants to 317 successful projects around Australia was announced on 4 May by Federal MPs Greg Combet (Minister for Climate Change and Energy Efficiency) and Tony Burke (Minister for Sustainability, Environment, Water, Population and Communities), with golf-related projects securing more than \$3.1 million of that amount.

The Biodiversity Fund is set to invest around \$946m over the next six years to help land managers store carbon, enhance biodiversity and build greater environmental resilience across the Australian landscape.

To do this, it will fund eligible land managers for activities in three main areas:

- **Biodiverse plantings:** Funding will help land managers expand native habitat on their property through planting mixed vegetation species appropriate to the region. This will help build landscape resilience and connectivity.
- **Protecting and enhancing existing native vegetation:** Funding will support land managers to protect, manage and enhance existing native vegetation in high conservation areas on their land for its carbon storage and biodiversity benefits.
- **Managing threats to biodiversity:** Funding will control the threat of invasive pests and weeds in a connected landscape.

The SMCMA is no stranger to working with golf clubs in the area and has just finished a project with Eastlakes Golf Club and is currently working with the NSW Golf Club (course superintendent Gary Dempsey) as part of earlier biodiversity/native vegetation programmes.

"We hope to work with about 10 organisations in this first stage of the project and continue to include additional sites over the next few years as funding becomes available," says Bethwaite. "We are also talking to Golf NSW so that the lessons we learn can be shared by courses across NSW.

"For grounds maintenance staff at golf courses, the project will be very direct and hands-on, with the focus on preserving existing native vegetation along with fostering regeneration and revegetation where required."

GREEN WITH ENVY IN KATHERINE

Katherine Country Club (KCC) in the Northern Territory, in conjunction with the Katherine Town Council and Green Australia, was another to benefit from the opening round of Biodiversity Fund grants.

A grant of \$1.329 million over a period of four years will enable the restoration of several areas within and adjacent to the Katherine CBD and the Katherine River flood plain. These areas will be linked creating green corridors from the river with the town's golf club and showgrounds.

According to a news release on the Katherine Country Club website, the grant money will enable the nine-hole course to undertake civil works to expand the size of the lakes and increase water collection, plant a range of native trees and bushes, remove exotic tree species, install a new automatic irrigation system to sections of the golf course and undertake major plantings in out of play areas.

KCC president Alden McCue and general manager Frank Dalton say the grant provides a fantastic opportunity for the club to reduce its water bill, install new irrigation and improve landscaping, as well as providing an opportunity to develop future carbon credit offsets.

Editor's Note: For more information about the Biodiversity Fund, visit www.environment.gov.au/cleanenergyfuture/biodiversity-fund.

Opposite page: A number of golf-related projects have secured significant funding in the first handout of grants by the Federal Government's Biodiversity Fund

REPORT LOOKS AT CARBON TAX IMPLICATIONS FOR GOLF CLUBS

Golf Australia, Golf Management Australia (GMA) and the AGCSA have released a report which looks at the introduction of the Federal Government's carbon tax and its likely implications for golf clubs. With the new carbon tax legislation coming into effect from 1 July 2012, the report, titled **'The Impact of the Carbon Pricing Mechanism on Golf Club Operations'**, aims to provide golf clubs with detail of the carbon pricing mechanism and its likely impact on club operations.

The carbon pricing mechanism, or 'carbon tax' as it is often referred, is central to the Federal Government's Clean Energy Future programme to reduce carbon emissions (carbon pollution) and encourage investment in clean energy via four key initiatives – carbon pricing, renewable energy, energy efficiency and land management.

Under the carbon pricing mechanism, the biggest emitters in Australia will be required to pay for their emissions, or offset their usage via the purchase of carbon credits. This represents approximately 60 per cent of Australia's total carbon emissions and includes emissions from electricity generation, some business transport, waste and industrial processes.

The carbon price will be fixed for the first three years and after that it will be determined by the market. Households, farmers and smaller businesses (including golf clubs) will have no direct obligations under the carbon price mechanism. However, golf clubs will be indirectly affected as the impact of the carbon pricing mechanism filters through the supply chain of goods and services that a club typically purchases.

The report also discusses the eligibility for golf clubs to generate carbon credits via the golf course landscape. Land management is one of the four components of the Clean Energy Future plan to reduce carbon emissions by providing farmers and landholders the

opportunity to earn carbon credits via the Carbon Farming Initiative scheme as established by the Government.

The scheme provides a framework for compliant and non-compliant carbon credits to be generated by reducing emissions or storing carbon on the land. Compliant carbon credits can be earned by farmers and landholders from approved activities, including reforestation and avoided deforestation. In turn, compliant carbon credits can then be purchased by business to offset their emissions.

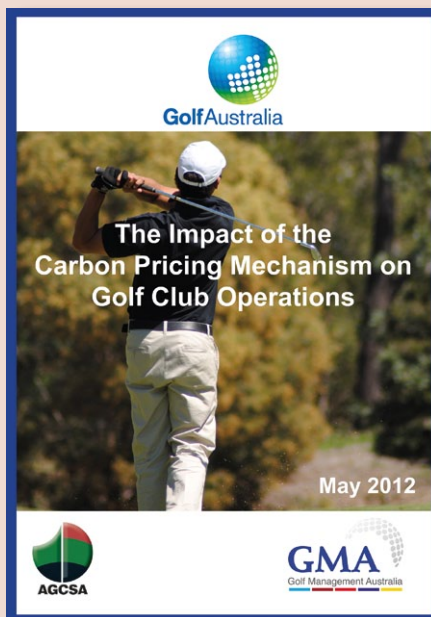
Non-compliant carbon credits can be earned by farmers and landholders from other activities, including soil carbon, improved forest management and non-forest revegetation. Non-compliant carbon credits can be made available to the voluntary carbon market, and some will also be purchased by the Government.

Components of a typical golf course landscape relevant to storing carbon are the existing tree population (non-forest vegetation) and soil. At present there is no activity recognised by the Carbon Farming Initiative relating to these golf course landscape components and therefore no present opportunity for a golf club to earn carbon

credits.

However, Golf Australia, together with GMA and the AGCSA, will be considering whether to jointly explore this issue further with a view to identifying an industry-based opportunity that could benefit golf clubs by allowing them to generate carbon credits via an eligible activity, or activities.

The joint GA/GMA/AGCSA report was sent to all golf clubs in May and AGCSA members can download a copy through the member's area of the AGCSA website (HR and Best Practice-Carbon Tax).



Olympic odyssey

The Olympic Club's Lake Course hosted its fifth US Open from 14-17 June. Pictured is the par 3 3rd being watered and rolled on the Monday of tournament week



The US Open has a reputation for being the toughest Major in golf and the 112th Open held at The Olympic Club was no exception. Royal Melbourne technician Luke Spartalis was one of eight Australians to assist with course preparations for this year's event and here he looks back on the tournament accompanied by photos taken by fellow volunteers Simon Blagg and Stephen Mallyon.

With a cold blast descending on Melbourne in early June, it was a nice feeling to be boarding a plane bound for the warmer climes of San Francisco to work at the 112th US Open. Along with seven other Australians, I was fortunate to be among 100 volunteers brought together from 16 different countries to assist with course preparations at The Olympic Club, my first experience of one of golf's four Major tournaments.

The Olympic Club was selected back in 2005 to stage the 2012 Open, with the renowned Lake Course hosting its fifth US Open since 1955, the last being in 1998. The Olympic Club is steeped in history and is the oldest athletic club in the United States, boasting some 5000 members and a total staff of 400.

A core crew of 55 look after the 45-hole golf complex, which also comprises the Ocean Course (18 hole) and Cliffs Course (9-hole), with Patrick Finlen the director of golf maintenance operations. A near 30-year superintendent veteran, Pat is the current vice president of the GCSAA and has presided over The Olympic Club for the past 10 years.

Since hosting its last US Open some 14 years ago, the Lake Course has undergone a number of changes and in between hosted the 2005 US Amateur. Using that tournament as a trial run for the Open, a number of new tees were constructed to add length to the course and for the 2012 Open the course played 320 metres longer than it did in 1998. The 16th for instance was lengthened from a mere

609 yards (556m) to a mammoth 670 yards (612m). The most significant work, however, was undertaken in 2008/2009 when all the Lake Course greens were converted from *Poa annua* to a 70/30 blend of Tyee/007 creeping bentgrass.

Through my involvement with the International Golf Course Equipment Managers Association, I was to be one of five volunteer turf technicians in The Olympic Club sheds. As mentioned, the volunteer corps numbered 100 and the other Australians who made the journey across were:

- Simon Blagg (senior greenkeeper, Roseville GC, NSW)
- Jeff Bowtell (Globe Australia, NSW)
- Russell Fletcher (superintendent, The Lakes GC, NSW)
- Rod Hinwood (superintendent, Ellerston, NSW)
- Stephen Mallyon (assistant superintendent, Roseville GC, NSW)
- Craig Molloy (superintendent, Shortland Waters GC, NSW and current NSWGCSA president)
- Mike Pearce (assistant superintendent, Sanctuary Lakes GC, VIC)

The San Francisco State University dormitories would be our home for the next week or so. With the regular inhabitants on summer vacation, The Olympic Club had procured the dorms as accommodation for the event, which considering the proximity to the club, shortage of accommodation in the surrounding area and the hours we were to be working, made good sense. We were paired two to a room and I bunked in with Dean Hall, an ex-pat

from Melbourne who has spent the past 10 years living in the US as superintendent at a large facility in Scottsdale Arizona.

The weather for the week looked good with temperatures between 18-24°C the norm and the usual San Francisco summer fog a real possibility, however, the last day of the tournament was the only time we were to see it roll in from the sea.

On the Sunday before tournament week I got my first look at the club and met up with Pat along with the HR director Celeste Repsher and newly appointed equipment manager Kevin Rendueles. Kevin and his lead technician, J.R. Celestino, maintain a large fleet of equipment along with two other techs, however, the addition of Jeff Kellison and Thomas Hurst from Bernhard and Co, along with Mike Ginelli (Turfstar), Mike Newbould (Claremont CC) and me was greatly appreciated considering the task at hand for the week.

Once the formalities were dispensed with, the volunteer contingent along with Olympic's own groundstaff assembled in a large marquee where Pat welcomed the group and introduced the key management personnel for the week. We were then given a week's worth of polo shirts, each adorned by a different sponsor's logo, along with several other items to make our stay more comfortable. Everyone was assigned their tasks and then taken out onto the course to familiarise themselves with their surroundings.



While the rest of the Aussie contingent were involved in a myriad of tasks – from hand watering tees and fairways, moving mats and raking bunkers – in the workshop it was all about fine-tuning the equipment and ensuring each machine was running at its optimum. Machinery for the Open comprised:

- 10 Toro eFlex mowers (greens);
- 7 Toro 1600 tees mowers;

The Australian course volunteer contingent for this year's Open with The Olympic Club's director of golf maintenance operations Pat Finlen (left) and the US Open trophy

CONGRATULATIONS



Jason Bushell
Rowes Bay Golf Course



Mark O'Sullivan
Roseville Golf Club



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◀ The fairway width on the short par 4 18th was just 21 yards (19m) for the tournament



Moisture levels in greens were taken every day using a TDR probe

A clear cut example of just how penal the Kentucky bluegrass roughs were at this year's Open



- 60 Toro MDX and 2110 Workman utilities;
- 5 Toro 3250D triplexes;
- 13 Toro 5410/5610 fairway mowers;
- 2 Salsco greens rollers;
- 1 Salsco fairway roller (more on this below);
- 2 Toro 3100D Sidewinders;
- 2 Toro 3500D rotary mowers; and
- 2 Toro Tru Trak stand-on mowers

Of the 60-plus walk-behind mowers I counted in the workshop, just 10 Toro eFlex mowers were being utilised for greens. The recently released battery powered model had been used at the course for several weeks leading into the tournament with a minor modification needed to enable it to meet the conditions.

Mowing heights started out at 0.12" (3.0mm) a little over two weeks out from the tournament with gradual drops in height to 0.105" (2.7mm) and 0.095" (2.4mm) before the final tournament cutting height of 0.09" (2.3mm) was dialled in from 5 June onwards.

The gradual decrease in heights leading into the tournament had been uneventful, however, the contouring of the two-tiered, par three 7th green was such that at 2.3mm the edge of the bedknife would scalp, obviously causing a significant problem.

An 18-inch eFlex mower had its bedknife shortened to a width of 14 inches which alleviated

the problem, however, the wider Wiehle roller from an eFlex 21 gained the same advantage and was given the nod in preference to the customised blade.

As with the rest of the volunteer contingent, the workshop crew was assigned various tasks for the tournament, however, on my first day I found myself draining the fuel from an out-front mower after an operator made that all too common mistake. Once that minor situation was dealt with, I was assigned my task for the week – to ensure the 13 Toro fairway mowers were cutting perfectly.

Because they were to be used to blanket cut each fairway (see photo top of page 16), any slight variation in adjustment would be visible so it was important to be meticulous with my setting. Cutting height for the fairway mowers was 0.400" (10mm) and each machine was to be checked and adjusted before both the morning and evening cuts.

With all 13 mowers tweaked, we were still awaiting delivery of the remainder of the catchers and accompanying brackets which were en-route from the distributor – cutting it fine would be an understatement – so I assisted in setting up the Toro 1600 mowers used for tees, collars and approaches. The wayward parts finally arrived and we spent that evening fitting the brackets until well after 11pm.

The following day I arrived just as the morning cut had been completed and after finishing my duties I was able to get out on the course for the first time to have a good look. Along with the overall beauty of the location, the presentation was second to none and the greens were extremely firm and ran between 12.5 and 13.5 on the stimpmeter.

The one thing which really stood out though was the short, fast and extremely narrow fairways and extremely penal Kentucky bluegrass rough. On the short par 4 18th for instance, the width along the entire length of fairway was just 19 metres (21 yards), with most other fairway widths only between 24-31m (27-34 yards). The rough around some of the par threes and short par fours was simply brutal.

After that little reconnoitres, I headed back to the workshop where the guys were busy fitting makeshift lights for the rollers, along with a last minute drive chain replacement to one of them.

Speaking of rollers, one of the more unusual pieces of equipment used to prepare the Lake Course for this year's Open was a Salsco fairway roller (see the two photos, top right hand page 16). While two conventional greens rollers were used throughout the lead-up and during the tournament, their much larger sibling – the Tranz-Former – was fired up in the immediate lead-up to the event in order to firm up and quicken the fairways.

To see this beast of a machine in action was quite an eye-opener. Manufactured by Connecticut-based company Salsco, the Tranz-Former weighs in at a hefty 1.2 ton (2260lbs) and comprises three rollers (two of which retract when transporting) for a

CONTINUED ON PAGE 16



**A lot of things live on a golf course.
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Above: Thirteen Toro 5410/5610 Reelmasters were used to blanket cut the cool-season grass fairways at a height of 10mm

Top right: The impressive 1.2 ton Salsco fairway roller in action

Far right: The modified eFlex greens mower with shortened bedknife and taped up reel

A number of new tees had been constructed since the last US Open held at Olympic in 1998, adding 320m in length to the course. Pictured is the 16th hole which measured 612m for the tournament



CONTINUED FROM PAGE 14

total rolling width of 3m (10 feet). It is powered by a 24-horsepower engine and when rolling travels at an impressive 18kph. I'm not quite sure if it would find a place back here in Australia, but it was certainly a sight to behold.

On the Wednesday before the tournament, while performing a morning check on the fairway units, I decided that two of them weren't going to go the distance, so the cutting units were pulled and with the help of the Jeff and Thomas from Bernhard and Co we set about removing and re-grinding all the bedknives. With the club owning two sets of grinders, the task was achieved in plenty of time for the evening cut and we rewarded ourselves with a long lunch at Joe's Steakhouse!

The first day of the tournament went off without a hitch and along with my usual fairway mower setting duties I was determined to organise the sea of red machinery into some sort of workable order. Until now, the sheer amount of equipment – there were 60 utilities alone! – had transformed the yard into a large Tetris puzzle. That evening the eFlex greens mowers had their bedknife blades removed and re-ground which would be the last major maintenance operation we would undertake for the tournament.

The remainder of the tournament was smooth sailing with the workshop staff able to enjoy some of the golf being played and soak up some California



sun. Kevin took time out to show me the club's other courses, in particular the Cliffs Course which was once an 18-hole layout reduced to nine some 50 years ago when a large portion slipped into the sea. The views from this now derelict piece of land were truly superb and topped off a fantastic week I won't soon forget. 🌿

TOURNAMENT STATS – THE OLYMPIC CLUB

Tournament history: US Open (1955, 1966, 1987, 1998 and 2012); US Amateur Championship 1958, 1982, 2007; The TOUR Championship (1993-1994)

Grass varieties: Tees – bentgrass/ryegrass/*Poa annua*; Fairways – bentgrass/ryegrass/*Poa annua*; Greens – Tyee/007 creeping bentgrass (70/30 mix); Rough – Kentucky bluegrass.

Tournament yardage: 7170 (6556m), par 70

Tournament stimp meter: 12.5-13.5 feet

Average green size: 4400 ft² (408m²)

Average tee size: 2000ft² (186m²)

Acres of fairway: 22 (nine hectares)

Bunkers: 62

Soil condition: Sand-based

Greens mix: USGA (90/10 sand/peat)

Rounds per year: 32,000

Water source: Effluent water

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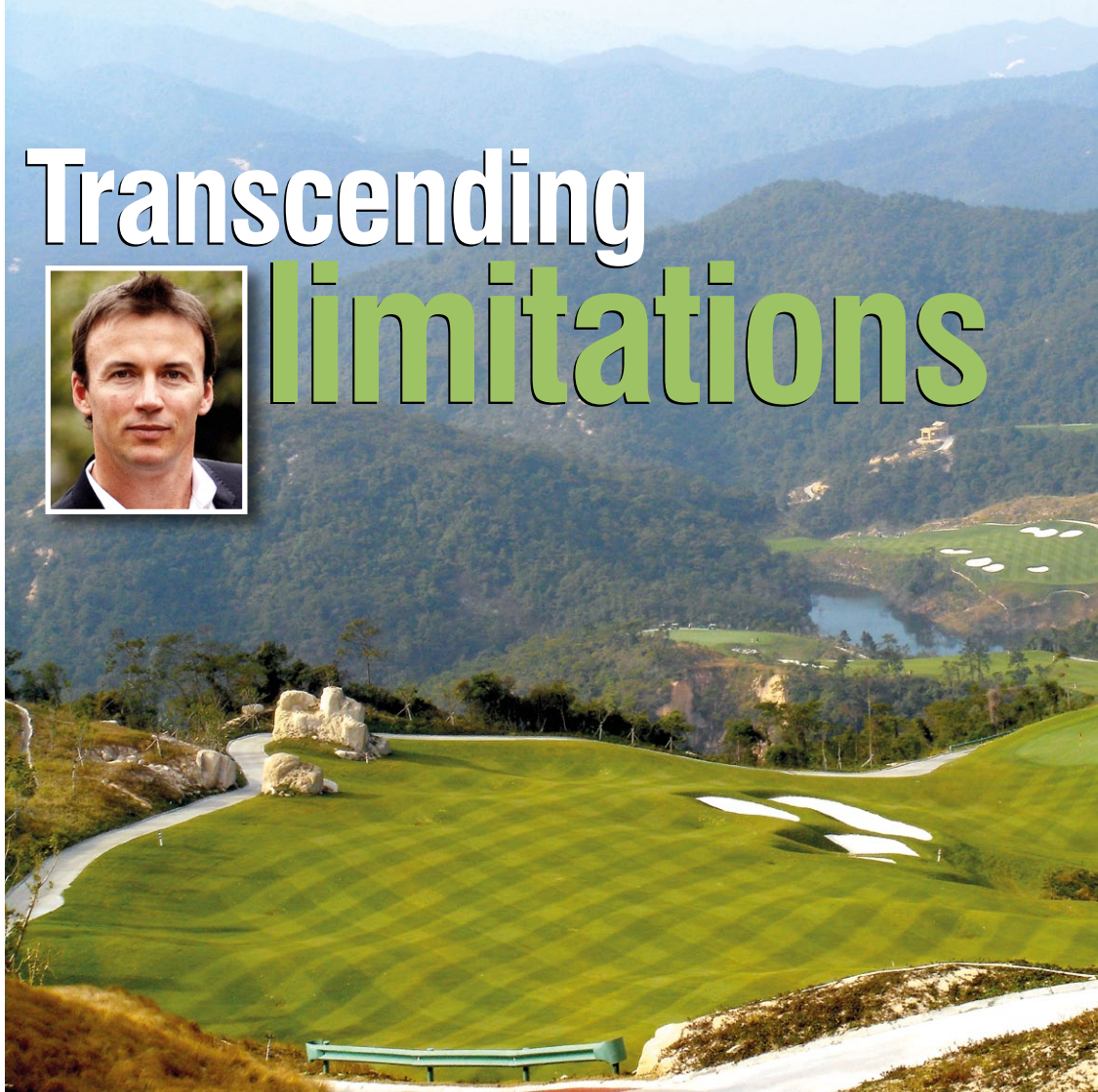
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China has been a hub of golf course development in the past decade with some impressive courses constructed in some unique locations, including The Kings Course (pictured) in Guangzhou. But as Cameron Thompson (pictured inset) stresses, ex-pat superintendents willing to take the plunge and work in Asia must adapt to and embrace what is a vastly different culture



Transcending limitations



In ATM Volume 14.3, Cameron Thompson recounted his fascinating journey in golf course management which has taken him to the Caribbean, the Middle East and now China. The former Toowoomba native is currently the director of agronomy for IMG Golf Services in Asia Pacific and in this follow-up article he looks at this diverse role and examines what it takes to make a fist of it in the highly competitive Asian golf market.

So you want to work in Asia? Why not, right? It's no secret the development of the global golfing market has slowed to all but a standstill over the last couple years, but Asia, and China in particular, is seemingly picking up speed and building new courses at an alarmingly rapid pace.

The question is, are you sure you're ready for the challenge of having your established ethics and ideologies confronted head-on and questioned at every turn? Remember that as ex-pats we are judged differently; moreover, we represent as ambassadors not only our respective countries of origin but also the course superintendent profession and the noble game of golf.

With all the myriad distractions and responsibilities, I'd estimate a vast majority of ex-pat golf professionals are unexpectedly unhappy in their work...and it's not uncommon to see shorter tenures than originally planned.

Imagine a place where almost all your social values and agronomic expertise may be irrelevant, or viewed as wrong, or even considered offensive. The old adage of 'one should treat others as one would like others to treat oneself' simply doesn't apply in many cases. I've found that in Asia, 'one should treat others as they themselves would like to be treated'. Trouble is, most times we don't know what that is; it takes time to understand the Asian mindset.

Nothing comes easy here. Sacrifice, hard work and dedication is the formula most Chinese abide by, so be prepared to adopt that ethos. I've rarely seen my family over the past decade, have missed funerals, marriages, weddings, etc... and have drifted ever further from my oldest, dearest friends – all in the pursuit of international success.

While today's technology breeds global awareness, China remains surprisingly sheltered from the outside world. Did you know that Facebook and YouTube are blocked there? Every Asian country has its own quirky rules and enlightened outsiders are quick to embrace them.

MY REALITY

In the last edition of ATM (Volume 14.3, May-June 2012) I traced my golf course management career to date. It has been a wonderful and eye-opening journey which has taken me to the US, the Caribbean, Bahrain, Egypt, the United Arab Emirates, Singapore, Thailand and now China. I am currently director of agronomy for IMG Golf Services, a territory that spans Asia Pacific. With extensive travel I'm certainly kept on my toes and the learning curve is extremely steep.

The diversity of the job fascinates. The Chinese, for instance, tend to place a great deal of importance on actual China golf experience. Two questions sure to be asked by any course developer when



they are interviewing prospective superintendents are how renowned is the superintendent and how much China experience do they have? As you can imagine, this really limits our choices.

I make regular site visits to all IMG facilities in support of the superintendents, offering technical advice to IMG on all matters relating to golf course grow-in, pre-opening, conditioning and tournament play. But I would estimate that 70 per cent of my time during site visits is spent on cross-cultural issues, especially when an ex-pat superintendent is involved.

Regular phone or email contact with our superintendents is paramount. There are 1.3 billion people in China and everything I do here involves a crowd, yet it can be a cold and lonely place, particularly when superintendents are posted in remote locations where language barriers undermine any attempt at relationship building.

I meet often, with owners where possible, on all sites, providing feedback and recommendations. As many owners don't come from a golfing background, it's good policy to sit and explain and justify technical agronomic processes and the potential ramifications. That said, we frequently have wonderfully engaging and extravagant meetings over lunch or dinner... which may include such delicacies as chicken feet, sea cucumber, or live seafood jumping around on the plate!

Other key components to my scope include:

- Reviewing and assessing annual golf course maintenance budgets at IMG facilities;
- With superintendents, approving mowing regimes for tees, greens, roughs and fairways, including the height, pattern and frequency;
- Approving aerification, irrigation, fertilisation and pesticide programmes on each golf course;
- Monitoring inventory levels of chemicals, fertilisers and other supplies at all facilities;
- Providing onsite equipment training to employees as needed;
- Recommending fertiliser, chemical and machinery suppliers during construction;
- Ensuring all clubs adhere to sound environmental practices;
- Maintaining the database of superintendents and assistants and recruiting as required;
- Working with course designers on site-specific soil system functionality and turfgrass selections where appropriate;
- Providing agronomy standards manuals to each club's superintendent and customising for their unique conditions; and
- Advising about the turf grow-in and guiding grow-in fertiliser programmes.

As you might imagine, when all these duties are coming at you from 16 different projects, all day every day, it can be more than a little challenging. We manage a broad spectrum of agronomic conditions, superintendents and personalities. Below is a brief rundown of feature clubs with which I've shared consultation in recent months:

JINJI LAKE GOLF CLUB

In addition to the IMG regional role, I am also the director of agronomy at Jinji Lake Golf Club, situated in Suzhou, China, which is a 27-hole Gary Player design. As my flagship project, it receives the lion's share of my attention.

Eddie Bao, an up-and-coming young local superintendent, has been aligned with the Jinji tradition since day one of construction. We pride ourselves on keeping daily green speeds at least 11 on the stimp meter and go well beyond 12 for special events.

The 27-hole Jinji Lake Golf Club, situated in Suzhou, China, hosted the 2010 Volvo China Open and is consistently named one of Asia's top 10 conditioned golf courses





◀ **One of the biggest challenges at a place like Hidden Tiger is the hot and humid monsoon season and managing the T1 bentgrass greens through such tricky, stifling conditions**

The idyllic Hidden Tiger Golf Club is just one of a number of courses that Thompson deals with in his role as director of agronomy for IMG Golf Services in Asia. Hidden Tiger is currently home to ex-pat Australian superintendent Jason Blacka

Positioning ourselves as the technological industry leader, we conduct and evaluate trials all the time. Currently we are undertaking a 20-hectare grass removal programme in order to naturalise the golf course and tighten the golfing corridors to provide greater textural contrasts.

Jinji hosted the highly successful 2010 Volvo China Open and is consistently named one of Asia's top 10 conditioned golf courses. In 2011 we became the first club in China to receive Golf Environment Organisation certification. www.jinjilakegolf.com

HIDDEN TIGER GOLF CLUB

At Hidden Tiger we work with superintendent Jason Blacka from Australia. Also designed by Gary Player, this course is tucked away in the province of Huangshan, a winding four-hour drive through breathtaking mountainous terrain from Nanjing Airport.

At Hidden Tiger, one of the daunting challenges is the hot and humid monsoon season of June through to September. Managing T1 bentgrass greens is tricky under such stifling conditions, so I work closely with Jason while engineering comprehensive

precautionary fungicide programmes. We're also currently trialling Turfbreeze fans to artificially influence surface air movement.

Despite a 2010 fire which consumed the maintenance building and all equipment therein and the fact the course experienced torrential rains and flooding last year, Hidden Tiger was nevertheless recognised as one of the best new courses in Asia for 2011. www.hiddentigergolf.com.

LAN HAI GOLF CLUB

Here I provide full pre-opening technical services and operational consulting services for this 36-hole Nicklaus Design project, located on Chongming Island, Shanghai.

Enjoying an outstanding location, this property will feature Asia's first 'Jack Nicklaus Legacy Course'. The vision is an exclusive private members club with an extensive real estate component, which would eventually host a significant international professional tournament. Barry Britton from Canada is the Lan Hai superintendent and coordinates 200+ maintenance personnel.

On the Links course we recently modified and retrofitted the fairway mower cutting units to articulate over the severely contoured fairways. Conversely, on the Woodlands Course we are planting more than 10,000 fully mature feature trees to create an artificial forest and completing the T1 bentgrass greens grow-in. www.lanhairesort.com

YISHAN GOLF CLUB

Situated in Wuhan, one of China's hottest 'furnace cities', Yishan is currently under construction. With Superintendent Benny Jin, we recently did the spec for this Rick Robbins-designed course with Tifeagle greens, Tifsport wall-to-wall and Irish Links in the outer rough. The engineering of a scientifically-based physical soil system has just been completed and soon we'll move onto the chemical testing module to create site-specific grow-in, soil remedial and first year maintenance fertility programmes. Most recently, we sourced the entire equipment fleet and design for the maintenance building.

NIRWANA BALI GOLF CLUB

Recently named 66th best course outside the US and number one in Indonesia by Golf Digest, Nirwana Bali is a long-term success story for IMG, with course proceedings managed by Canadian Adam Calver. In this beautiful and tranquil setting, we focus on managing the jungle which requires constant trimming.

Originally spec'd with Bermudagrass, the course is now mainly managed for zoysiagrass contamination and thatch control, with drainage and grass varietal masking through fertility also among our current priorities. Unique to this Greg Norman designed course, Adam has opened up the jungle to showcase local temples and traditions for the golfers. www.nirwanabalgolf.com/



SOCIAL CONSCIOUSNESS

As I see it, the Chinese golf industry is 80 per cent politics and 20 per cent knowledge plus results and not the other way around to which most superintendents are accustomed. The quicker that ex-pats embrace this, the quicker their lives become that much easier here.

I don't impose my way of doing things too much as I think it's important to let Asian golf find its own feet and evolve autonomously. My role is to guide and provide direction as needed. This way we're creating a happy marriage of the two cultures, involving everyone's ideas and ultimately producing the best possible results.

Of course, much depends upon the skills of each individual superintendent and the next generation of locals is showing a lot of promise, with more and more travelling overseas for internships or university training.

To further illustrate this point, here is a quote from a long-time ex-pat living in Hong Kong, Danny Potter, principal of Centaur:

"My company conducts business in 15 Asian countries and the way in which we do business varies wildly from one country to another. However, it's not really about being Chinese, or Indian, or Korean, or Filipino, or Caucasian. Yes, sure, race has something to do with the way we all are, but 'culture' is what makes us. Culture is what defines who we become and the way in which we live our lives."

Look at the Chinese in mainland China, versus the Chinese in Singapore and the Chinese in America. In general they all look the same, but their characteristics are worlds apart. They have been 'cultured' by different surroundings and have their own unique identities – and we have the responsibility to understand each different nationality and respect them for who they are.

The assumption many foreigners make when they come to live and work in Asia, is thinking that Asians are all the same. Big mistake."

Before anyone ventures to Asia, I recommend reading these informative publications:

- The Asian Mind Game;
- Thick Face, Black Heart: The Warrior Philosophy for Conquering the Challenges of Business and Life; and
- Working with the Thais.

ASIAN AGRONOMY 101

Course conditioning is judged on a completely different criterion in Asia. For example, I was working at a club in Thailand when we sent two members to Augusta National for the US Masters. Remarkably they returned with horrible reviews of the experience.

In Asia, a great deal of emphasis is placed upon interpersonal relationships, even in business. The line between personal and professional can be a very blurry one indeed, subtly shifting underfoot without warning, so even the most exquisite course



conditions of Augusta could not counterbalance the negative interpersonal experiences there.

As for technical matters, I would say that water management is probably the most misunderstood agronomic practice in Asia. 'Green is good' remains the primary principle, brown is frowned upon and often seen as simply an unhealthy turf or playing surface. This philosophy can lead to trouble as over-irrigation often occurs.

In northern China the summer brings rampant disease pressure on the cool-season grass varieties. In the south, where we tend to spec Bermuda or paspalum, it gets very hot and humid and the natural urge is to irrigate more and more, which I dub 'panic watering'. While water may be part of the solution, it often compounds existing agronomic agitation.

In China, perhaps the most important foundation for success is finding an assistant who believes in you and your philosophies and can be trusted to execute according to plan. He/she will also be the first to inform you when any underhandedness is at play and guide you on how to react – I cannot overly stress how vital this part is.

I am very lucky in that I have found a very good assistant in Keri Xu and she comes with me on all site visits. Simply having confidence in your translator is also enormously important; unfortunately, even at the best of times, I plan to lose 30 per cent of my meaning in translation.

Red Flag Valley Golf Club in Dalian is another dramatic Chinese golf course. Elevation changes of 300m from boundary to boundary create some unique course management issues, especially when it comes to irrigation and pumping

TOURNAMENT PREPARATIONS

There's nothing like hosting a big event. I love the pressure, the excitement and all the many challenges. It feels great when the lights go on, the players are receptive to the conditions provided and all goes well. A televised international tournament is the ultimate showcase for any club, as it builds history, story and even myths.

As mentioned in my previous article, I have been involved in the WGC HSBC Champions Tournament in Sheshan and the Shui on Land China Challenge at Topwin Golf and Country Club and Red Flag



◀ **Sheshan Golf Club hosts the WGC HSBC Champions Tournament, the highest-profile golf event in all of Asia. Sheshan consists of A1/A4 bentgrass greens and wall-to-wall Salam paspalum. One of the biggest challenges is the limited time (six weeks) between overseeding the paspalum with perennial ryegrass and establishing a thick 100mm rough, as required by the European Tour**

Valley Golf Club. I was also involved with the construction, grow-in and tournament prep at Lake Malaren for the Shanghai Masters.

WGC HSBC

The WGC HSBC held at Sheshan Golf Club in Shanghai is the highest-profile golf event in all of Asia and I work closely with local superintendent Mike Meng year-round in preparation. During the lead-up, advance week and tournament time we both coordinate with Eddie Adams, the European Tour's consulting agronomist.

Sheshan, designed by Nelson & Haworth, consists of A1/A4 bentgrass greens and wall-to-wall Salam paspalum. One of the biggest challenges is the limited time (six weeks) between overseeding the paspalum with perennial ryegrass and establishing a thick 100 millimeter rough, as required by the Tour, in time for the event.

We carefully balance an accelerated grow-in fertility programme with an awareness of potential long-term issues such as *Poa annua* development and the dreaded spring transition. Happily, the tournament was a complete success and the course was recently named one of Golf Digest's Top 100 courses outside the US. www.sheshangolf.com

SHUI ON LAND CHINA CHALLENGE

This tournament prep put me in the unique position of having to literally fly back and forth between two IMG golf courses – Red Flag Valley (RFV) in Dalian and Topwin Golf & Country Club in Beijing. The format included a quartet of world-renowned players – Lee Westwood, Ian Poulter, Rory McIlroy and China's number one golfer Liang Wen Chong – competing over six days at eight different venues.

Issues encountered at RFV are primarily irrigation based, as it's quite hydraulically daunting pumping water around a site with a 300m elevation change from boundary to boundary. At Topwin we were just recovering from excessive summer patch disease on the Kentucky bluegrass fairways. But we managed it well and the players had a ball, so to speak.

SHANGHAI MASTERS

My first assignment after arriving from The Tiger Woods Dubai was quite the challenge. In just six months we had to rebuild and reroute an existing Peter Thomson (of the US) design and turn it into a Nicklaus Legacy design. Amazingly, we pulled it off (we were planting trees and laying sod right up to Wednesday evening before the event!)

Sprigging the 419 Bermuda to 100 per cent turf coverage took just three weeks on average and the grow-in of the A4 greens necessitated the construction of enormous shade tents in order to sustain growth through the scorching summer. How barren was it before we began? During the camera location tour, there was not a blade of grass on the course...now that has to be a first! www.lakemalaren.com.

FROM BOOM TO BAN

The burgeoning middle class has made golf an immensely popular game in China. But with 600 courses (which is roughly one per cent of world golf) and China having a predominantly agrarian economy, the central government called a halt to new golf course construction in 2011 and began investigating all golf projects.

A ban on golf course development was originally imposed in 2004 to protect China's dwindling farmland and conserve water, yet 400 golf courses have opened since then (courses are built and operated without the proper approvals and licenses on a regular basis.) Often initial construction deadlines go unmet due to the protesting and even rioting of local villagers. Some courses therefore become stuck in idle and semi-completed sites dot the landscape.

The fear to draw attention is so real at times we have been forced to employ camouflage techniques to conceal unfinished courses! Specifically, at one Beijing site we completely covered all the comfort stations in dirt and seeded with Irish Links to prevent the area resembling a golfing venue.

We remain hopeful the government will soon complete their due diligence and declare a direction forward for Chinese golf development. Until then, we must sit back and wait patiently.

DECISIONS

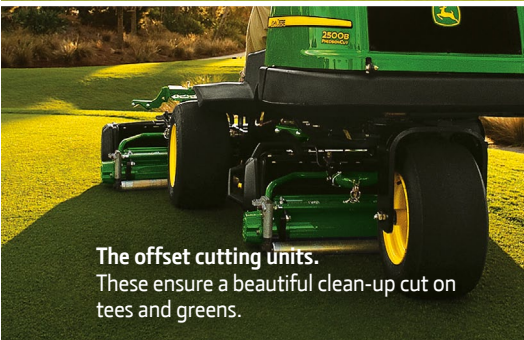
Hopefully through this and my previous article I have provided a broad overview and a little personal insight of what to expect in Asia. It can be very rewarding, especially when watching a young superintendent grow into a polished professional.

It is my bold goal that we influence Asian golf on an international level, and as you can see, both IMG's and my own personal accomplishments depend upon a team of individuals with that special blend of agronomic, and more importantly, social skills. On balance, I am quite lucky in that golf is not a job for me, but instead a lifestyle I'm trying to make the most of. 🌱

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It was only a few years ago that many course superintendents were having to manage their courses with reduced water thanks to the drought. While the pressure is seemingly off at present, the next drought may only be a few dry months away

Drought?

What drought?



Given the levels
of precipitation
many parts

of the country have

experienced in recent

times, water management

planning would probably

be well down the priority

list for most course

superintendents and turf

managers at present.

However, as ATM columnist

John Neylan writes, such

complacency could come

back to bite them.

At the recent Australian Turfgrass Conference in Melbourne, there were two presentations that made me start thinking about water management planning – again! Visiting US experts Dr. Frank Rossi (Cornell University) and Dr. Van Cline (Toro) both spoke about water, water use efficiency and water management planning as part of the everyday activity of managing turf.

As I write this article Melbourne's Herald Sun newspaper has published a cartoon by renowned cartoonist Mark Knight showing a rusty 'white elephant' labelled as the Wonthaggi desalination plant, implying that the plant is now redundant.

Seeing this cartoon both deflated my idea but also annoyed me in that it highlights what appears to be an endemic lack of water management policy in one of the world's driest continents. While we now have "plenty" of water, it is the perfect time to review your own water management strategy. We cannot continue to react in a 'knee-jerk' manner when times are desperate. Sounds like government planning doesn't it?

Water is a major issue in that without it there is no turf, or at the very least a very poor quality turf, while at the same time there are major pressures on inland waters that potentially reduce the availability of water for turf. Some of the pressures affecting this availability are;

- Drought and climate change;
- Greater demands on water supplies for urban use;
- Loss of riparian vegetation (i.e.: vegetation adjacent to waterways);

- Excessive surface and groundwater extractions; and
- Altered flow regimes resulting from dam and barrage construction.

Golf courses continue to be challenged about water use and have to demonstrate that they are ecologically and economically sustainable. As Philip Russell from The R&A discussed at the Melbourne conference, it is all about the sustainability of the business and the business depends on a reliable water supply and it is an expense.

We must continually remind ourselves that the golf course is part of a larger catchment and as such impacts on the water flows into and out of the site. You just need to discuss with anyone involved with a new golf course development about the stringent compliance procedures that need to be completed before approvals are granted. The responsible management of all natural resources within the site is essential for the future of golf and sound water resource management is absolutely critical.

While the pressure is off and the desalination plant is "rusting", the next drought may only be a few dry months away. The process of water management planning provides the necessary information for understanding water needs, assessing the water source(s), demonstrating best practice and identifying where improvements can be made. It is also very important that superintendents and turf managers realise improved water management will result not only in water savings but also reduced energy use, monetary savings and improved turf quality and consistency.



The process of water management planning provides the necessary information for understanding water needs, assessing water source, demonstrating best practice and identifying where improvements can be made

CASE STUDY

While working at AGCSATech I undertook a water management planning exercise for a golf club that is a worthy reference of what one golf club was able to achieve. The golf club was prompted into undertaking the water management investigation due to a period of dry weather where their water storage reached a critical point and the decision had to be made to cease irrigating fairways. While it was a relatively unseasonable event, this event did prompt the club into reviewing its water strategy and putting a water management plan in place.

A key objective of the golf club's water management plan was to have adequate water to irrigate greens, tees and fairways for 40 rain free days during summer. The philosophy of the plan was to not only have water available for all areas of the golf course in a dry summer, but to always have sufficient water for the greens and to a lesser extent the tees.

During the water management planning exercise there was a large amount of information collected as it related to the local catchment, soils, turfgrasses, water sources and turf quality objectives. The following information is a summary of the key information compiled.

- **Type of course:** A parkland/bushland golf course where the mature forest vegetation aligning the boundary and fairways of the course is a major feature. It is a private members course where a high level of presentation is provided. The course consists of bentgrass greens and Santa ana fairways and roughs.
- **Topography and soil:** The topography of the local area including the golf course is part of a plateau and is bordered by a series of ridges and gullies which in part forms a component of the water catchment and storage for the golf course. The golf course is undulating and the

soils are heavy clay loam topsoil with frequent sandstone outcrops.

- **Climate:** The climate can be described as temperate, with warm summers and cold winters and a uniform rainfall pattern exceeding 800mm. In terms of turfgrass management the growing season for warm-season grasses (i.e. couchgrass) is about eight months and about 10-12 months for the cool-season grasses (i.e. bentgrass, *Poa annua* etc.). Because of its location, the golf course has numerous microclimates with extensive areas of shade during winter and increased temperatures and humidity in summer. The treescape also reduces air movement which contributes to plant stress and disease pressures.
- **Native vegetation:** The native vegetation consists of remnant Blue Gum (*Eucalyptus saligna*), Angophoras (*Angophora costata*) and Scribbly gums (*Eucalyptus racemosa*) in the shallow soil areas. Grey Ironbark (*Eucalyptus paniculata*) and Turpentine (*Syncarpia glomulifera*) are the main tree species.

DAM AND WATER CATCHMENT

The principal source of irrigation water for the golf course is derived from an on-site dam that collects stormwater from the surrounding catchment. Given that the dam is such an integral component, it was essential to understand how the catchment worked. Studies on both the capacity of the dam and the catchment were undertaken by hydrologists.

The catchment covers an area of 220 hectares and in the hydrology study it was estimated that 22 per cent of the catchment was impervious and the remaining 78 per cent pervious. The study used the ILSAX simulation model to determine the potential runoff from the catchment based on various storm events.

Upgrading older irrigation systems is one of many ways to improve water management efficiency



A formal irrigation maintenance schedule is important to systematically check sprinkler operation and performance, leaks and component operation



The runoff model accounts for various factors including soil types, soil moisture content, area of impervious and pervious landscape as well as rainfall intensity. The model was run for various antecedent moisture conditions in the catchment from a completely dry catchment to a saturated catchment.

As part of the catchment study the average daily outflow (irrigation usage) was determined from meter readings for a typical irrigation season. The usage volume adopted from that data was 0.4ML/day which reflects peak usage less wet days and non-watering days.

An average daily evaporation of 6mm was adopted based on local meteorological data. The existing capacity of the dam when full is 29.7 megalitres (ML) and the finding of the report, based on the current irrigation strategy, was that the dam would be empty after 65 days of no rainfall.

The golf course relies on summer rainfall to 'top up' the dam and importantly the models indicated that on a rather dry catchment (i.e.: where there will be some absorption of rainfall by the soil), 10mm of rainfall would provide about 1.2ML of runoff into the dam.

WATER QUANTITIES AND FLOW RATES

The golf club depends entirely on the 30ML (approx.) capacity stormwater collection dam which depends on summer rainfall to top up levels in order to meet the total irrigation requirements of the golf course (about 80ML).

Water costs the club about \$450/ML/annum which is principally the cost of pumping the water and maintenance costs. The cost of water is an often neglected cost when the club does not pay a direct charge for the water extraction, however, it is important to consider it as a per megalitre cost rather than allow the costs to be lost among other charges such as electricity and other maintenance items.

WATER QUALITY REQUIREMENTS

The water from the golf course dam is low in dissolved solutes (including salts, sodium and chloride) and nutrients and is classified as a high quality water supply.

CURRENT WATER CONSERVATION PRACTICES AND TECHNOLOGY

The golf course employs several water conservation practices including:

- PC-based irrigation control system that has good flexibility;
- Application of wetting agents to fairways using an injection system as part of the irrigation system. The wetting agents improve water penetration and evenness of distribution;
- Hand-watering of localised dry areas instead of irrigating the entire turf area;
- Spot watering of dry sections of fairways instead of irrigating the entire fairway;



Weather stations can provide a more accurate determination of golf course water demand

- Modified irrigation programmes for the north and south sides of fairways which are affected differently by shade.

Most golf courses are undertaking some water conservation techniques and they should be documented.

WATER BUDGET

Based on the available data the typical water use was calculated at about 80ML/year. Long-term weather data was compiled for the golf course as a means of determining the theoretical water requirement for the golf course.

The process of estimating the irrigation requirement is as follows: Estimated water requirement = Irrigated area (m²) x (Evapotranspiration rate – Effective Rainfall) x (1/ Efficiency). The calculated water requirement was around 89ML/year. Across most of the turf areas water use efficiency was high, however, it was identified that use efficiency could be improved on the fairways as it related to irrigating roughs.

The adopted crop factors reflected the required quality of the playing surfaces. A CF of 1.0 was used for high presentation cool-season grass putting greens consisting of creeping bentgrass. For the fairways a CF of 0.7 was used for couchgrass that is green and at a high level of presentation.

When the water budget for the course was

considered it may be necessary to reduce the amount of water applied and a CF of 0.5 was considered the minimum water requirement for couchgrass while providing reasonable 'greenness' and a good playing surface. Under severe water limitations the CF of 0.25 was considered the minimum amount of water for couchgrass survival while maintaining a playable surface.

For each individual golf course it is important that the turf quality requirements are identified and then appropriate crop factors allocated.

STRATEGIES, IMPLEMENTATION AND REVIEW

Following the collection of all the relevant site and water use data, it was concluded that irrigation management was at a high level but there were opportunities to increase water use efficiency by refining the method of irrigation scheduling through the installation of a weather station to calculate ET, soil moisture sensors, an improved control system and undertaking a system audit.

The area of greatest waste identified on the golf course was the over-watering of the fairways in order to provide adequate water to the roughs. The other identifiable loss of water from the system was evaporation from the dam which was considered to be significant, though the extent of the loss was not precisely known.

THE LAST FRONTIER OF GOLF COURSE MANAGEMENT

During a recent trip to Thailand to inspect Black Mountain Golf Course, I had the opportunity to travel to Myanmar (Burma) to participate in a turf seminar. The seminar was put on by the newly formed Myanmar Golf Course Superintendents Association (president Myo Dan) and I was privileged to be able to speak along with Phil Ryan (Pacific Coast Design) and Peter Sawyer (Links Golf) about our experiences in golf course maintenance.

Fifty attended the seminar, which was opened by Myanmar Golf Federation vice-president Aung Kyi, with representatives of the local PGA also being involved. My colleague in Thailand, Gavan Wilson, has recently assisted in course preparation for the Myanmar Open on behalf of the Asian Tour and did much of the organising for the seminar along with Thaik Din.

Myanmar is truly the last frontier of golf course management though it does have about 100 golf courses with many of them being built by the British during the early 1900s. There are some more recent additions including the Gary Player-designed Pun Hlaing GC

on the outskirts of Yangon and the Pacific Coast Design course Royal Myanmar Golf and Country Club located at the new Myanmar capital of Naypyidaw.

Staff numbers and budgets are generally low. As was pointed out to me, mowing of greens may be limited to twice a week because there either isn't the fuel available or it is too expensive to mow more frequently. We also had a great discussion about rolling greens and the benefits versus the negative aspects. It took some time to sort out that the local version of rolling was based on the use of a rather large and heavy roller used on the salt farms rather than the lightweight greens rollers we are used to!

From a turfgrass agronomy perspective there is much to be learnt about weeds, weed control, grass types and their management requirements and the overall conditioning of golf courses. However, with the changing political scene, the country is predicted to start to encourage more tourists etc. and there seems to be plenty of opportunity for the local golf scene to capitalise.

- John Neylan



The Gary Player-designed Pun Hlaing GC on the outskirts of Yangon in Myanmar



More than 50 people attended the seminar put on by the newly formed Myanmar Golf Course Superintendents Association



Soil moisture sensors are a very good tool for establishing soil moisture status and the effectiveness of irrigation and rainfall

A cursory investigation was undertaken of the feasibility of obtaining other sources of water. Sewer mining was seen as the only opportunity, however, preliminary advice indicated that the flows were insufficient to be of economical use.

RECOMMENDED ACTIONS

There were several actions that were recommended to improve water use efficiency and to increase the understanding of the water cycle on the golf course and to be able to better plan for periods of reduced water availability.

The key recommendation was the development of a drought management plan. A key objective of the golf club's water management plan was to have adequate water to irrigate greens, tees and fairways for 40 rain-free days during summer and to always have sufficient water for the greens and to a lesser extent the tees.

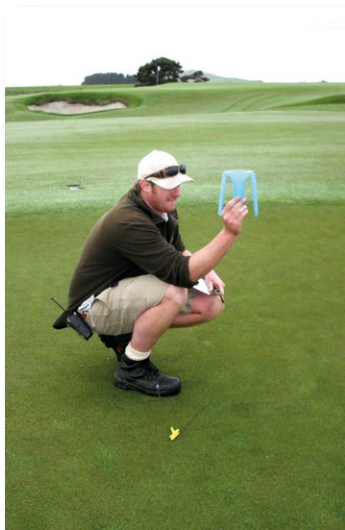
A simple model was developed to manage the gradual reduction in water use as the number of days without rainfall increased. The model was based on the assumption that the peak irrigation requirements were 0.4ML per day for the golf course. Key trigger points were established for 50, 40, 30, 20 and 15 per cent of dam capacity.

The drought management strategy allowed for the available water, assuming that the dam starts off full, to be extended to about 100 days. The calculations did not allow for evaporation or other possible losses. The model provides 'unlimited water' for about 37 days without rainfall, with a reduction of 25 per cent at about this time. At 63 days without rainfall (dam at 30 per cent capacity) water use would need to be reduced by 75 per cent.

The rationale behind this strategy was to achieve a gradual reduction that will slowly harden the turf compared to a sudden cessation of irrigation. The greens are the most susceptible turf areas on the golf course and there is no chance of bentgrass surviving more than a week during peak summer without irrigation. Therefore the greens are always given priority.

Other recommendations of the water management plan included:

- Installation of a weather station to provide a more accurate determination of water demand;
- Upgrading the irrigation control system to provide a more targeted approach to irrigation;
- Installing soil moisture sensors;



Undertaking an irrigation system audit is recommended to confirm assumptions about irrigation distribution uniformity

- Installing irrigation system in the rough which would allow for improved water use efficiency, less waste of water and prevent over-watering of fairways;
- Installing water level monitoring equipment in the dam;
- Investigating options for increasing dam storage capacity due to siltation of the dam over time;
- Initiating a formal irrigation maintenance schedule that systematically checks sprinkler operation and performance, leaks, pump operation, solenoid operation and satellite operation;
- Undertake an irrigation system audit. Although the irrigation system had a high level of efficiency, it was recommended to undertake an in-house water audit to confirm assumptions regarding precipitation rates and irrigation uniformity; and
- Investigate regional long-term water management and catchment planning.

OUTCOMES

There have been several aspects of the water management plan that have been implemented including:

- Installation of sprinklers in the roughs which has provided several benefits including improved distribution uniformity, reduced water use on fairways by about 30 per cent, more controlled growth resulting in reduced mowing and less scalping, reduced pest and disease potential and improved fairway presentation and consistency.
- Installation of a ring main around each green with adjustable arc sprinklers that only irrigate green surrounds. This provides better control of water to greens and surrounds with improved surface quality.
- Irrigation system software upgraded to the latest Toro Lynx system including moisture sensors in four greens, weather station installation and improved overall water management.

At this particular site there has been water savings and a more systematic approach to irrigation management. While water conservation is a key outcome there are other very tangible benefits in terms of improved turf quality, more consistent surfaces and the ability to better manage the various microclimates around the golf course.

As a desktop exercise, it is a relatively easy process to undertake. The AGCSA has provided all of the tools to assist in undertaking a water management review through its water management portal which can be accessed at <http://water.agcsa.com.au/water-management-review>.

While it is raining and you are stuck in the office, sit down and work through the review. At the very least you may demonstrate that all is good and there are minimal improvements required. More likely, you will develop a list of priorities that you can budget for and implement over time. 🌱

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Rossi

makes his mark in Melbourne



WORDS AND PHOTOS: BRETT ROBINSON

Nearly 600 delegates converged on a wintry Melbourne for the 28th Australian Turfgrass Conference and Trade Exhibition held at the start of June. ATM reviews some of the highlights from a memorable week in the Victorian capital.

Cornell University's Dr Frank Rossi headed to the recent 28th Australian Turfgrass Conference and Trade Exhibition with a wildly regarded reputation as one of the turf industry's great minds and entertaining presenters. After a week at the Melbourne Convention and Exhibition Centre he returned Stateside with that reputation firmly intact, if not bolstered, after being without doubt the highlight of this year's turf industry gathering which brought together nearly 600 delegates.

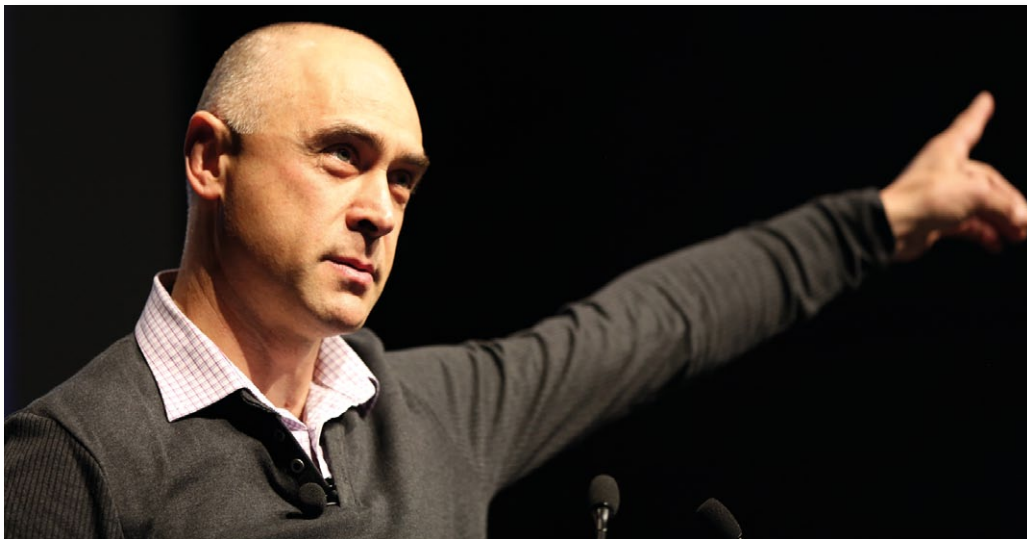
The energetic and effervescent associate professor, one of the industry's foremost researchers in the areas of nutrient management, mowing technology and non-chemical pest management programmes for golf and sports turf, was widely lauded by conference delegates. Across all education streams his interesting and provocative presentations were among the highest attended of the week and his ability to never miss a beat from go to whoa left many delegates asking for more.

Dr Rossi, speaking at his first Australian turf conference, gave three talks during his time in Melbourne, including:

- Organic and biologically based cultural and pest management programmes in the real world which discussed the 10-year research project he was involved with at Bethpage Golf Club;
- Sustainable turf management programmes which addressed practical aspects of sustainable turf management with an emphasis on climate change and carbon economy and easy-to-implement management practices; and
- Resource efficient sportsturf management which wrapped up the conference education sessions on Thursday. This seminar focussed on mowing, fertilisation, cultivation and pest management programmes and challenged delegates' conventional thinking about current cultural management practices with an eye on improved efficiency

While there were plenty of accolades forthcoming for Dr Rossi, it also appeared that Melbourne left a lasting impression on the native New Yorker if the comments to AGCSA events and education manager Simone Staples post-conference were anything to go by:





Former AFL star Wayne Schwass gave an open and passionate talk on mental health issues

"I am very grateful for your invitation to speak at the Australian Turfgrass Conference. It was by far my favourite trip and conference of my 22-year career. The people, the places, the food, the footy will always hold a special place for me. Thanks so much for the wonderful hospitality and if success is measured by the 12 to 15 emails I have already received from participants thanking me, then we did great!"

While Rossi was a firm favourite, there were plenty of other speaker highlights during the week. Following the opening Plenary session address on men's health by Avondale Golf Club captain Dr John Riley (who immediately won the audience over by giving it to 'his' superintendent David Warwick), former AFL star Wayne Schwass talked passionately about mental health issues and how he battled depression during his playing career.

Schwass's open and compelling talk resonated with many in the room, none more so than AGCSA president at the time and session chair Allan Devlin who divulged his own battles with mental illness. Schwass commended Devlin for having the courage to open up in front of his peers and congratulated the AGCSA for having the inclination to put mental health issues on the agenda.

Schwass concluded by saying that he hoped that his talk would encourage those dealing with mental health issues to open up and seek advice. Given the stressful environment that many superintendents and turf managers have to perform under, his words would no doubt have been heeded.

Alongside Dr Frank Rossi, the international contingent of speakers in Melbourne was bolstered

by The R&A's Phillip Russell, assistant to the director of golf course management Steve Isaac who toured Australia back in 2008. Russell, who was here as part of the International Summit hosted in the days leading up to the conference, teamed with John Neylan and Daryl Sellar to discuss the issue of golf course sustainability.

From an agronomic perspective the conference contained a wealth of technical information, from Dr Henk Smith's discussion of chemical resistance to Andrew Peart and John Geary reviewing the latest results from AGCSATech's various Horticulture Australia Limited funded trials. Dr Don Loch also returned to the stage in Melbourne to present findings on some of his recent project work on mites and the screening of warm-season grasses for herbicide tolerance.

For the technically aware and not-so-aware, the turf industry's own social media gurus Nadeem Zriekat (Colin Campbell) and Robin Doodson (Sanctuary Cove G&CC) presented a one-and-a-half-hour session on how new technology can assist turf managers in their jobs. Despite some technical glitches – isn't that always the case with tech-related talks – Zriekat and Doodson introduced delegates to some very useful turf management smart phone apps and how the likes of Twitter, Facebook and blogs can be effective communication tools when used appropriately.

Another popular presenter was Sharon Kaibel from Right Turn who left a lasting impression on delegates with her two presentations. Kaibel presented a fascinating behavioural profiling session as part of the Management stream on Thursday



The post-conference Turf Tour visited the Melbourne Olympic Parks Trust precinct where Adrian Black (below) showed delegates around AAMI Park (above) and Gosch's Paddock



Main photo opposite and below: The many expressive faces of conference keynote Dr Frank Rossi





More than 70 companies exhibited at the trade show



2012 Toro AGCSA Golf Championship winner Scott Fogg

before conducting a two-hour workshop on Friday which focused on communication and presentation skills. The AGCSA was also delighted to host Cottesloe Golf Club superintendent Simon Bourne and wife Marina who were part of Gerry Power's talk on finance.

In the sportsfield stream, Melbourne Olympic Parks Trust (MOPT) horticulture manager Adrian Black chaired a highly informative 'end users forum' which brought together representatives from the Melbourne Demons, Melbourne Storm and Melbourne Heart. At the end of the conference he then took more than 60 delegates on a tour of the impressive MOPT facilities which includes AAMI Park, Gosch's Paddock (training facility – both Melbourne and Collingwood were in the throes of training) and Rod Laver and Hisense Arenas.

Cameron Sutherland also brought together fellow curators Damian Hough (Adelaide Oval), Marcus Pamplin (Bellerive Oval) and Brett Siphthorpe (Westpac Stadium, Wellington, NZ) as part of an open forum which looked at such topics as transitioning grounds from cricket to winter sports, preparation techniques, T20 and the expectations of preparation and issues unique to each stadium.

The two-day trade show was again well supported with more than 70 companies exhibiting,

including a number of new companies such as Maredo BV and SST Australia. (Winners of the various competitions are listed in the Around the Trade section pg 67).

As in previous years, webcasts were recorded of all golf, sportsfield, agronomic and management stream presentations and these have now been made available to all conference delegates. If you were unable to attend the conference but would like to view these webcasts, you will be able to purchase access. To find out more details contact the AGCSA on (03) 9548 8600. Photos from the week can also be viewed on the AGCSA's Flickr photostream.

FOGG COLLECTS FIRST RED JACKET

Recently appointed Queanbeyan Golf Club course superintendent Scott Fogg collected his first Toro Red Jacket after winning the 2012 Toro AGCSA Golf Championships held at Commonwealth Golf Club in Melbourne at the start of conference week.

Playing off a +1 handicap, Fogg posted a three-over 76 in wet and testing conditions to win the championship by two shots from two-time previous winner Anthony Toogood (Commercial Golf Club, Albury). Fogg started his round on Commonwealth's 3rd hole and was six over at the turn after a string of four bogeys and a double bogey. However, on the run home he nailed three birdies (on 13, 17 and 2) to finish with 76.

Fogg's victory came in just his first year as a fully fledged golf course superintendent and AGCSA superintendent member. Despite being a regular contestant in past AGCSA Golf Championships and on two occasions posting the best stroke score, because he was an assistant superintendent at the time he was ineligible to win the Red Jacket. Fogg's win quickly made the local headlines and his exploits in Melbourne were plastered across the sports section of The Queanbeyan Age newspaper.

Hawks Nest Golf Club superintendent Damien Murrell, a former runner-up in the stroke event back in 2009, won the newly created Nett title on a countback from Toogood, while the state teams title (nett) went back to NSW which pipped WA by five shots. Defending state champion ACT was one shot further back in third.

The NSW team comprised Wayne Hensley (Breakers CC), Trevor Ridge (Sawtell GC), Ben Norton-Smith (Longyard GC) and Andy Hugill (Mona Vale GC) and it is the fifth time since 2006 the blues have carried home the trophy. Nearest the pin and longest drive prizes were scooped by Turnpoint superintendent Corey Budden.

The AGCSA Golf Championships were played across two venues for the first time this year with Metropolitan Golf Club hosting the stableford event which was won by Toowoomba Golf Club course superintendent Danny Beresford. Playing off an 18 handicap, Beresford posted an impressive 39 points to beat home Paul Sanson (Townsville City Council) by one point. Harley Copeland (Bonville

LONERGAN, BALLOCH CONFIRMED ON AGCSA BOARD

Coolangatta & Tweed Heads course superintendent Peter Lonergan was officially elected president of the AGCSA at the 2012 AGCSA Annual General Meeting held during the Melbourne conference. Lonergan becomes the seventh AGCSA president since 1991 and takes over from Allan Devlin (Secret Harbour) who stepped down after four years as president and a total of seven years on the Board.

The AGM also saw Anglesea Golf Club course superintendent and former VGCSA committee member Brett Balloch officially elected as an AGCSA director for a term of two years. Balloch takes over the Events and Education portfolio from Lonergan and joins incumbent directors Darren Wilson (Wembley Golf Complex, WA – Treasurer) and Tony Fogarty (Club Catalina Country Club, NSW – State Liaison).

International) won the nearest the pin on Metro's 2nd hole while Sean Stuchbery (Bundaberg GC) smashed the longest drive.

While the big guns slogged it out at Commonwealth and Metropolitan, across at Woodlands Golf Club the inaugural AGCSA Trade Challenge was contested. The three-man team stableford event was won by Jacobsen (69 points) which was represented by Nick Brown, Peter Morrison and Noel Delia. Delia capped off a fine day by finishing with the best stableford score of 39 points.

ODELL TOPS AGCSA AWARDS

While the week proved memorable for Fogg, for industry icon John Odell the conference was made even more special after he received the AGCSA's highest honour. The former Royal Sydney Golf Club superintendent of 24 years joined a who's who of the golf course and turf management profession after being bestowed the AGCSA Distinguished Service Award which was presented during the Syngenta President's Dinner held at the MCG on the final night of the conference.

Odell was joined by fellow 2012 award winners Steve Marsden (AGCSA Claude Crockford Environmental Award), Ben Tilley (AGCSA Excellence in Golf Course Management Award), Scott Roberts (AGCSA Award for Academic Achievement), David Canterbury (AGCSA Graduate of the Year) and



Rory Bairnsfather-Scott (STA National Sports Turf Graduate of the Year). Profiles on all winners, except John Odell who will be featured separately in Volume 14.5 (September-October 2012), can be found on pages 44-55 of this edition.

SEE YOU AT TWIN WATERS 2013

At the conclusion of the Melbourne conference, it was announced that the 2013 conference will be heading to Queensland. The 29th Australian Turfgrass Conference and Trade Exhibition will be held at Twin Waters Resort on the Sunshine Coast from Sunday 23 June to Friday 28 June 2013. Put it in your diary now! 📅

2012 AGCSA Award winners and sponsors at the MCG



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GCSAA chief Rhett Evans (left) and wife Colleen get cosy with a croc



A scurvy-ridden quartet spotted at the Bayer Welcome Reception



A happy return to the stage for Dr Don Loch



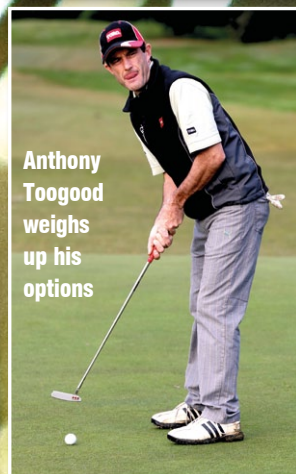
Manly maestro Michael Bradbery



The R&A's Phillip Russell



Anthony Toogood weighs up his options



Melbourne memories



**Bourne
inspirations**



**Ben Norton-Smith crushes his
drive down 12 at Commonwealth**



Doodson delivers



**Jeremy Mamet, from
Mauritius, deftly chips on**



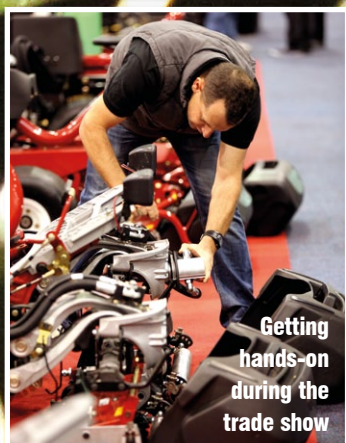
**The ex-pres
bids farewell**



**Dr Henk Smith
talks resistance**



**Dr John Riley
discusses men's
health issues**



**Getting
hands-on
during the
trade show**



**The Red Jacket brigade
welcomed a new member
to the fold in the form of
Scott Fogg (with trophy)**



March 2012 brought to an end the AGCSA's bentgrass varieties trial which has been ongoing at three sites in New South Wales, South Australia and Victoria since April 2009. John Neylan and Andrew Peart present the final results to emerge after three years of data collection.

Bentgrass trial holes out

Since 2001 there have been about 14 new creeping bentgrass (*Agrostis stolonifera*) cultivars developed in the USA, with about 12 of these released in Australia. With these new releases there has been very little independent trialling undertaken to determine their performance under Australian conditions.

With the assistance of matched funding from Horticulture Australia Limited, in 2009 AGCSATech embarked on a three-year project (HAL Project TU08002) to conduct replicated trials in Victoria, New South Wales and South Australia. The project's primary aim was to compare the newly released bentgrass cultivars with industry standards, along with a vegetative selection (AGCSA1) that was selected and evaluated during HAL Project TU06001.

Fifteen creeping bentgrass cultivars, including two industry standard cultivars (Penn G2 and Penn A1) were sown at Cromer Golf Club, NSW (CGC) and Keysborough Golf Club, VIC (KGC) with 17 at Royal Adelaide Golf Club, SA (RAGC). At each location the vegetative variety AGCSA1 was also planted using stolons. AGCSA1 was the best performing selection from over 400 selections that were evaluated over five years (refer to TU01001 and TU06001) and was included to compare its performance with the newest and best performed seeded cultivars.

Working with the Australian Seed Federation, varieties submitted for trial were: Tyee, 007, Dominant Xtreme, SR1150 and SRP1RH93 (Advanced Seed); T-1 (Simplot); Penn G2, Authority and Penn A1 (Heritage Seeds); Cobra 2 and CY 2 (DLF Seeds); Shark (Seed Force); Declaration, Mackenzie, SRP1GMC and Mariner (PGG Wrightson).

The trials were established at the three sites in mid-April 2009. The seeded bentgrasses were

sown at an equivalent rate of 5 grams per square metre allowing for the differences in percentage germination and seed coatings, while the vegetative variety was planted using stolons (scarified turf) at a rate of 0.28m³/100m².

Plots were in a completely randomised block design and assessed visually for germination and seedling vigour, rate of establishment and performance as a putting surface. The results of the establishment data have been previously reported in ATM Volume 11.6.

Plot assessments were undertaken every two months at each site using the National Turfgrass Evaluation Program (NTEP) turfgrass evaluation guide (Morris, undated). Most visual ratings collected on NTEP trials are based on a 1 to 9 rating scale. One is the poorest or lowest and 9 is the best or highest rating. A rating of 6 and above is generally considered to be acceptable. The NTEP methodology was adopted with modifications for these trials.

In judging the significant difference between cultivars, readers and users of data from this project should be aware that cultivar differences are based on use of Least Significant Difference (LSD) statistics for mean separation. The LSD value(s) is located at the bottom of each table presented.

To determine whether a cultivar's performance is truly different from another, subtract one entry's mean from another entry's mean. If this value is larger than the LSD value, the observed difference in cultivar performance is significant and did not happen by chance. It is important to remember that results can vary from year to year and from location to location. Therefore, always reference the LSD value when interpreting test results.

RESULTS

Tables 1-3 (pages 39 and 40) represent an overall rating for each cultivar when all the assessment data was averaged for the two-and-a-half years. The tables show results for turfgrass quality, colour, density.

TURFGRASS QUALITY (TABLE 1)

At KGC, the long-term average indicated that the cultivars Authority, Declaration and Shark had significantly better turfgrass quality than 007, Dominant Xtreme, AGCSA1, SR1150, T-1 and Tyee. At CGC, the long-term average indicated that the coded variety SRP1RH93 had the best turfgrass quality, however, it was not significantly better than AGCSA1, while at RAGC there was no significant difference for the long-term average.

TURFGRASS COLOUR (TABLE 2)

The colour of individual cultivars is not a critical factor in selecting a particular cultivar and is more a personal choice depending on the required aesthetics. At the KGC site the long-term average demonstrated that the cultivar T-1 provided the



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darkest green colour and significantly darker than all other cultivars apart from Cobra 2. This was similar at CGC where T-1 was significantly darker than all cultivars. While it was also one of the darkest cultivars at RAGC, there was no significant difference between any cultivars.

TURFGRASS DENSITY (TABLE 3)

At KGC, the long-term average provided a significant difference between cultivars with Shark having a greater turfgrass density compared to T-1, Tyee, SR1150, Penn G2, Dominant Xtreme, Cobra2, CY2, Penn A1 and 007. Authority, Mackenzie, Declaration, SRP1GMC, SRP1RH93 and AGCSA1 were not significantly less dense than Shark.

At CGC, the long-term average showed that the cultivars SRP1RH93 and AGCSA1 had significantly greater turfgrass density compared to all cultivars except Tyee. Penn G2 had the lowest turfgrass density compared to most other cultivars.

At the RAGC site, the long-term average provided a significant difference with AGCSA1 having greater turfgrass density compared to all cultivars except for 007, Authority, Shark, SRP1RH93 and Tyee. The cultivars Shark, Tyee and SRP1RH93 also rated highly for turfgrass density.

THATCH ACCUMULATION (TABLE 4)

Table 4 represents the total amount of thatch (in millimetres) that had accumulated for each cultivar at the end of the trial period, three years after sowing.

Across all the trial sites there were only significant differences in thatch depth determined at CGC and this was at the first and last assessment date. At about five months after seeding, AGCSA1 had significantly greater thatch depth compared to all cultivars except for 007, Shark and SRP1GMC. At the last assessment date, Tyee had a significantly greater thatch depth compared to Authority, CY 2, Cobra 2, Declaration, Dominant Xtreme, SRP1GMC and T-1. The cultivars Shark and AGCSA1 also had a greater thatch depth compared to Authority, CY 2, Cobra 2, and Dominant Xtreme.

TRAFFIC TOLERANCE

Traffic was applied at the KGC site using a wear machine as described by Neylan and Robinson (1997) fitted with Black Widow soft spikes. In October 2010 traffic was applied on five consecutive days with a total of 160 passes of the wear machine. This level of wear is considered to be the equivalent of more than 500 – 600 rounds of golf.

In 2011, traffic was applied on 15 occasions from mid-August to early November. On each occasion there were 20 passes on each plot. In 2012, traffic was applied on four occasions during mid-January with 40 passes on each plot.

Traffic tolerance is a visual estimate and was rated by the effect it had on turfgrass density using a 1 to 9 rating scale, with 1 being no tolerance or

TABLE 1: LONG-TERM AVERAGE OF VISUAL TURFGRASS QUALITY

Variety	Keysborough	Cromer	Royal Adelaide
007	6.5	6.5	7.2
Penn A1	6.6	6.6	7.1
Authority	7.0	6.3	7.1
CY 2	6.7	6.5	6.9
Cobra 2	6.7	6.6	6.9
Declaration	7.0	6.4	6.7
Dominant Xtreme	6.5	6.3	6.7
Penn G2	6.8	6.1	7.1
Mackenzie	6.8	6.6	6.9
AGCSA1	6.3	7.2	7.3
Shark	7.0	6.9	7.4
SR1150	6.5	6.9	6.9
SRP1GMC	6.8	6.6	6.9
SRP1RH93	6.9	7.3	7.2
T-1	6.4	6.8	7.0
Tyee	6.5	7.2	7.3
Mariner	-	-	6.5
RAGC Blend	-	-	6.7
LSD (P<0.05)	0.4	0.3	ns

100 per cent injury and very poor density, while 9 being complete tolerance or no injury and excellent density.

The data was analysed as a 'two factor with replication' which provided an analysis of the two variables - cultivar and wear - as well as the interaction between the two variables. There was a significant cultivar effect on all dates as well as a significant wear effect (i.e. wear causes a significant reduction in turfgrass density). There were no significant interactions on any assessment date.

GREEN SPEED AND SURFACE HARDNESS

On different occasions there were significant differences observed for green speed, however, on no occasion was there consistency with any of the



TABLE 2: LONG-TERM AVERAGE OF VISUAL TURFGRASS COLOUR

Variety	Keysborough	Cromer	Royal Adelaide
007	6.6	6.6	6.9
Penn A1	6.7	6.5	6.9
Authority	6.7	6.4	6.7
CY 2	6.4	6.6	6.6
Cobra 2	7.1	6.7	6.8
Declaration	6.5	6.5	6.4
Dominant Xtreme	6.7	6.6	6.8
Penn G2	6.7	6.5	6.8
Mackenzie	6.6	6.6	6.8
AGCSA1	6.9	6.9	6.8
Shark	6.7	6.6	6.9
SR1150	6.4	6.5	6.4
SRP1GMC	6.7	6.6	6.7
SRP1RH93	6.7	6.9	6.9
T-1	7.2	7.2	6.9
Tyee	6.4	6.6	6.7
Mariner	-	-	6.5
RAGC Blend	-	-	6.5
LSD (P<0.05)	0.2	0.1	ns

TABLE 3: LONG-TERM AVERAGE OF VISUAL TURFGRASS DENSITY

Variety	Keysborough	Cromer	Royal Adelaide
007	6.7	6.5	7.4
Penn A1	6.6	6.6	7.1
Authority	7.1	6.5	7.3
CY 2	6.8	6.7	6.9
Cobra 2	6.8	6.7	6.9
Declaration	7.0	6.6	6.6
Dominant Xtreme	6.4	6.4	6.5
Penn G2	6.8	6.3	7.2
Mackenzie	7.0	6.6	7.1
AGCSA1	7.0	7.4	8.0
Shark	7.2	7.0	7.7
SR1150	6.6	7.0	7.2
SRP1GMC	6.9	6.7	7.0
SRP1RH93	6.9	7.4	7.4
T-1	6.5	6.9	7.0
Tyee	6.7	7.3	7.4
Mariner	-	-	6.4
RAGC Blend	-	-	6.8
LSD (P<0.05)	0.3	0.3	0.7

cultivars that had previously shown significance. Surface hardness was evaluated with a Clegg hammer and on no occasion was there any significant difference observed.

POA ANNUA INVASION, DISEASE INCIDENCE AND LATERAL MOVEMENT

In late 2011 and 2012 an assessment was undertaken of the percentage of *Poa annua* infestation that had occurred at the Royal Adelaide trial site. On both assessment dates there was no significant difference among the cultivars.

At Keysborough, during the middle of 2011 Yellow Tuft (*Sclerophthora macrospora*) disease was evident among the trial plots, however, there was no significant difference observed between any of the cultivars.

TABLE 4: FINAL THATCH DEPTH ACCUMULATION (MM)

Variety	Keysborough	Cromer	Royal Adelaide
007	19	20	25
Penn A1	19	21	24
Authority	20	19	25
CY 2	20	19	24
Cobra 2	21	17	27
Declaration	20	20	26
Dominant Xtreme	19	18	28
Penn G2	22	22	26
Mackenzie	20	22	26
AGCSA1	20	24	27
Shark	21	24	28
SR1150	19	22	27
SRP1GMC	19	20	24
SRP1RH93	21	22	28
T-1	20	20	27
Tyee	20	25	28
Mariner	-	-	25
RAGC Blend	-	-	28
LSD (P<0.05)	ns	3.6	ns

Lateral movement was assessed at all three sites on one occasion and at only one site was there a significant difference observed. SRP1GMC was the cultivar at Cromer Golf Club that showed the quickest rate of recovery, however, another seven cultivars were not significantly slower.

DISCUSSION AND RECOMMENDATIONS

There were significant differences for turfgrass quality, density and colour at the CGC and KGC sites, whereas at RAGC the differences were far less conclusive. The most notable feature of many of the new cultivars (including the vegetative cultivar AGCSA1) is the very high tiller density. The high tiller density provides a smoother putting surface, however, it does contribute to greater thatch accumulation. All the bentgrass cultivars accumulate thatch very quickly and there was little or no significant difference between the cultivars.

The trials have demonstrated that there are several new cultivars that have improved turfgrass quality, turfgrass density, traffic tolerance and ball roll characteristics but not all contained within the same cultivar.

As observed in previous trials there are local effects which can alter the order of performance and highlights the importance of undertaking local trials before selecting a new cultivar. The trials have demonstrated there are new cultivars that provide superintendents with a variety of alternatives that may be best suited for their location.

In selecting a new cultivar the recommended process is as follows;

- Inspect trial plots (where possible) and/or review the local trial plot data;
- Select 3-4 cultivars that may be most suitable and establish them in large plots (minimum 10m²) for testing in the specific location under the maintenance regime for that site. Ideally the plots should be subjected to regular wear (e.g.: a practice putting green); and
- Evaluate for at least two years.

ACKNOWLEDGEMENTS

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Don't mention the war...

In the May-June 2012 edition of ATM (Volume 14.3), John Neylan's column looked at the issue of *Poa annua* control and questioned whether superintendents needed to take a more holistic approach to its eradication. In light of that column, The Pulse quizzed superintendents whether they have altered their *Poa* control strategy in recent times and what they have found works and doesn't work at their course.

“Over the years, as with most superintendents, I have tried everything possible for *Poa annua* control. The most success I've had was restricting the amount of nutrient available to the plant at different times of the year. Unfortunately members require more grass on greens through winter for some reason, making fertilising through winter necessary, thus encouraging a good thick healthy sward of wintergrass to go with the bentgrass.

For 15 years we've been spraying two applications of Exporsan and still getting *Poa* germinate plus continual complaints of the smell that would last for days. We also put out up to four applications of endothal but still to no avail. Last year I sprayed Nominee which had a devastating effect on all greens to the point that I will never use the chemical again.

A paclobutrazol programme is used throughout winter, controlling the size of the plant but by no means reducing the number of plants. Our policy

now is to manage greens until the surface is deemed to be too heavily infested with *Poa* to be a true surface. We then remove the surface and start again with solid turf.” **Glenn Cross, Mt Lawley Golf Club, WA**

“The greens at Avondale are Penn G2 bentgrass and vary in age from 6-12 years due to the reconstruction process which we undertook. For the most part, the greens are 100 per cent *Poa*-free, which is primarily the result of huge amounts of labour spent hand-weeding. To give you some idea of how much is involved, every green is hand-weeded every week from May until first renovation in September. All staff are involved and generally we would have 6-8 staff assigned this task daily for anywhere between 2-4 hours. Depending on what golf events we have, this will vary.

I have been using Exporsan at the full label rate for a number of years. Given how much *Poa* is removed by hand, I am left wondering about the usefulness of these applications. The first application is made during February at full rate, followed by split applications monthly to keep the maximum amount of active in the upper level of the profile. I'm looking forward to the future of *Poa* control with products like Nominee on the market



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and methiozolin hopefully not too far away.” **David Warwick, Avondale Golf Club, NSW**

“I guess *Poa* control for us would be considered a job in the ‘too hard/too expensive’ basket if we were to attempt to rid our greens of it in a quick fashion. Being a club with only two groundstaff, a tight budget and very old push up greens comprised of a very fine sand, our *Poa* population is about 30 per cent at its worst.

A chemical solution is out of the question for us, so we generally concentrate on improving soil conditions with thatch reduction, regular dusting with USGA-spec sand to improve drainage and keeping the profile fairly hungry by limiting the amount of nitrogen we apply. Through these methods, over the past five years the soil profile has improved its drainage potential in the top six inches, increasing the length of the bent rootzone and diminishing the need to water as frequently. Because of this we can dry out the top couple of inches more in the summer months and allow the bent to flourish while the *Poa* dries out.

As a result, *Poa* populations have come down from 50-60 per cent 10 years ago to the 30 per cent we have today. While larger, more prosperous courses tend to fix the *Poa* problem and keep a vigilant eye on any *Poa* problems on a weekly or monthly basis, I guess we just have to take a more patient route to *Poa* control.” **Eddy Ruis, Portland Golf Course, VIC**

“The construction of Ranfurly Golf Course (Melbourne) began in 2000 with the course opened for play in April 2002. The greens at Ranfurly were constructed out of sand sourced onsite that drained at between 150-180mm per hour, slowing down to 90-100mm after compaction. Mechanical devices such as Vertidrain etc means that we keep the profiles open promoting good root depth. Dusting and grooming greens is and always has been an integral part of our maintenance programme along with annual renovations.

Our methods for *Poa annua* control for the first 6-7 years was the traditional way, keeping

“If there is ever a topic to get the adrenaline flowing in an old bloke who has dead set lost hair and years off his life (and so very nearly his job on several occasions), it is the enigma that is *Poa annua*! Why do we want to get rid of it? Because it is an inferior turfgrass! If that is the case how does it invade and then conquer?

At Castle Hill Country Club I fought the good fight for 20 years, but at what cost? I lost a lot of turf and 49 per cent of the Board at one stage. We were throwing everything at this amazing little competitor, but still it hung on like a mongrel dog! We could eradicate 90 per cent of it effectively, but the last 10 per cent was so hard to shift we would debilitate the host sward in our attempts at perfection! Pre-emergents, post-emergents, cultural techniques, psychological techniques – you name it, we took the ‘holistic’ approach and then some, but no matter what we had started

to call *Poa* ‘bloody’ *annua*, it was giving us a great run for our money!

About three years ago I decided to stop the fight and let the different grasses try and cohabitate. In this multicultural society of ours it seemed like a logical approach. So what has transpired? Overall the greens are pretty good year round and the vast majority of the members have never been happier! We use lots of PGRs and needle tines through the summer months. It is very rare these days for the putting surfaces to be the topic of heated debate in the clubhouse and I enjoy getting behind a walk mower most mornings with one of my young apprentices and bore him senseless about the days when we used to fight that little pale yellow grass in among the *Agrostis stolonifera*! P.S.: The Poms call it annual meadowgrass, the Yanks call it annual bluegrass, I call it #!@*&^ wintergrass!” **Martyn Black, Castle Hill Country Club, NSW**

the bentgrass lean/mean and stressing the *Poa* out. This practice though was achieving minimal success in keeping the greens pure with *Poa* gradually infesting the unhealthy and not very happy bentgrass. We applied light rates of endothal during summer and were forever hand-watering trying to keep greens alive.

It became evident that we were slowly losing the fight and the wintergrass was becoming more prevalent and harder to remove as time went on. With that we decided to spend some time researching wintergrass control and talking with the industry leaders in the field. Following several conversations and site visits with Glenn Stewart (then Woodlands Golf Club, now Metropolitan Golf Club) we decided to change our whole philosophy on controlling the problem.

Our endothal applications are in mid-July and August, one month apart at high rates, with



superintendents and golf clubs course maintenance standards



“We have learnt over time that it is now easier to work with it (*Poa annua*) rather than against it and that the majority of our golfers wouldn't know what they are putting on, as long as it exhibits the characteristics of what they call a good putting surface”
- Mal Durkin



greens sprayed in two different directions to avoid possible serious damage from overlap. We also raise the height of cut to 4mm over the non-growth period. Irrigation practices and monitoring have improved particularly over the past few years. More irrigation over the summer months has resulted in a happier, healthier plant along with higher volume of fertiliser through the growing months to ensure the bentgrass is vigorous and strong, not allowing *Poa* to infest. Cultar is applied monthly from September through to March.

We have had fantastic results using these methods and will continue to follow this programme. The amount of wintergrass in our greens surfaces has reduced to less than 10 per cent from somewhere around 40 per cent and rising prior to starting the above programme.” **Luke Harris, Ranfurly Golf Course, VIC and Neil Craig, Australian Golf Course Management**

“Wembley Golf Course has 42 bentgrass greens that vary from two to 30 years old with a varying amount of *Poa* in them (0-20 per cent). When I first arrived at Wembley 10 years ago there was a lot more *Poa* (up to 50 per cent in some greens) mainly because of over-watering due to a poor irrigation system.

I have always had the belief of a slow eradication approach here with limited chemicals being used on our greens. In my first few years I used to hit the *Poa* hard with growth regulators throughout the year which provided good slow control/reduction of *Poa* over time with no pre- or post-emergent chemicals used. This approach probably took six years to get them to the level where they are at now. Spoon feeding the greens with liquids has also provided the best results.

We tend to tolerate small amounts of *Poa* as the seasons dictate how much is in the greens at any time. Over the last few years the hot WA summer months have controlled the *Poa* to the point where we have not needed to treat the *Poa* at all. This has been good as any chemical treatments just make the summers harder on the bent.

When we hit autumn renovations we again don't

apply any chemical treatments until the greens are fully recovered, then we use growth regulators again in combination with spoon feeding. There will always be *Poa* there but the growth regulators do a good job in slowly reducing the *Poa* and stopping any seed production, which is the key in my opinion. This approach is repeated until August or just before we renovate where we stop any treatments and follow the same applications until they recover, then apply growth regulators every two weeks until mid-November before heading into summer mode again. I personally believe *Poa* in small amounts is tolerable and the health of the root system of the bent is far more important than applying chemicals on a regular basis to control this weed.” **Darren Wilson, Wembley Golf Complex, WA**

“*Poa annua* thrives in the ideal climate of Tasmania and therefore it is an ongoing battle to eradicate this grass species. The fairways and surrounds have a fair percentage of *Poa* in them mixed with other cool-season grasses, so controlling it on the greens becomes a constant containment programme.

The only change we have made to our programme is using Primo mixed with a liquid fertiliser on a regular basis during the growing season. It works very well and produces a good putting surface. It also stops any seed head problems affecting ball roll. I have also noticed a lower water requirement and less dry patch problems on the greens.

The club has looked at a future greens resurfacing programme, so we have been doing some trial work with G2 bentgrass and have installed the new grass on half of a pitching green. This is a good comparison to the current surface and with the trial now running for 15 months it is interesting to note we are already battling *Poa* invasion in the new bentgrass.” **Stephen Lewis, Royal Hobart Golf Club, TAS**

“In the past here at Whittlesea we have had a programme for *Poa* control. We used endothal with various results, but the biggest problem we found was that we were left with bumpy greens.



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After many complaints from members we had to incorporate a topdressing programme to combat the bumps left after the endothal had done its job.

Being a club with very limited funds we found the programme an expensive exercise and we couldn't spray fairway and surrounds to try to eliminate the *Poa* altogether because of the cost. With the amount carried onto the greens and blown in from the fairways and surrounds it became a lost cause. I would love to have sprayed pre-emergent chemicals to help with the *Poa* but this wasn't to be.

We currently don't spray for *Poa* and accept that it will be back as always. We cut our greens a bit more often when the *Poa* is about and roll them to try and reduce the uneven surface caused by the seedhead. With *Poa* being present in our greens we have to keep an eye out for anthracnose as it tends to come in quite severe. I am hoping in the near future to try Nominee which I have read provides a gradual removal of *Poa* thus eliminating a lot of the bumpy surfaces that you get from other products."

Brad Tucker, Whittlesea Golf Club, VIC

"At Twin Creeks we treat *Poa annua* control/prevention with a holistic approach which has been vital in the success of keeping our greens 98 per cent *Poa* free. Twin Creeks has been open for seven years and the then superintendent Phil Beal introduced strong pre-emergent and to a lesser extent post-emergent control programmes. We were lucky to have a new golf course built around old pasture land with no previous seed bank other than *paspalum*, therefore it was important not to become too complacent and start from day one with both pre- and post-emergent control programmes.

Our current programmes are still the same for our warm-season grassed areas and for the first time in 2011 we used Exporsan on our greens from April-September. As we did see some *Poa* in selected greens, it was decided to put out an application of Nominee with good results achieved. Currently in our greens we have no visible *Poa* but I would expect to see some plants by the end of winter. If this is the case, another application of Nominee will be made. Of course hand-weeding

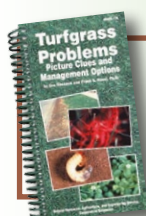
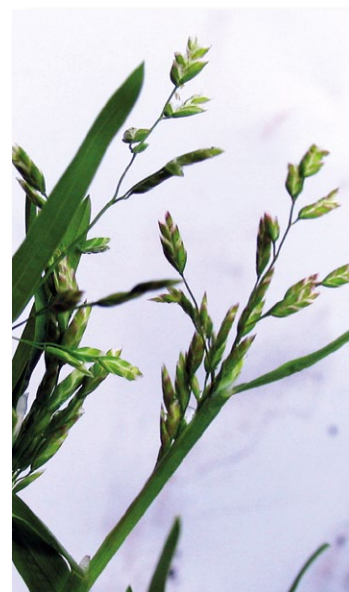
is always part of the programme on all surfaces."

Brendan Hansard, Twin Creeks Country Club, NSW

"We no longer try and control the *Poa annua* in our greens, but we do attempt to minimise or suppress the seedhead that it produces with the use of growth regulators. No longer do we worry about reducing the percentage of *Poa* in our greens, especially as we do very little to control *Poa* in the rest of the golf course, except on our kikuyu fairways. We have learnt over time that it is now easier to work with it rather than against it and that the majority of our golfers wouldn't know what they are putting on, as long as it exhibits the characteristics of what they call a good putting surface (i.e.: flat, smooth and consistent ball roll)

By following an integrated plan of *Poa* seedhead suppression, preventative pesticide programme, increased dethatching and scarifying, regular daily double cutting, irrigation management, use of wetting agents, higher rates of bentgrass seed oversowing at renovation time and increasing the frequency of Vertidrain aeration, we have found that the bentgrass/*Poa annua* combination provides us with a putting surface that can be managed comfortably by our staff, but then tinkered with to improve for bigger events."

Mal Durkin, Moore Park Golf/Centennial Parklands



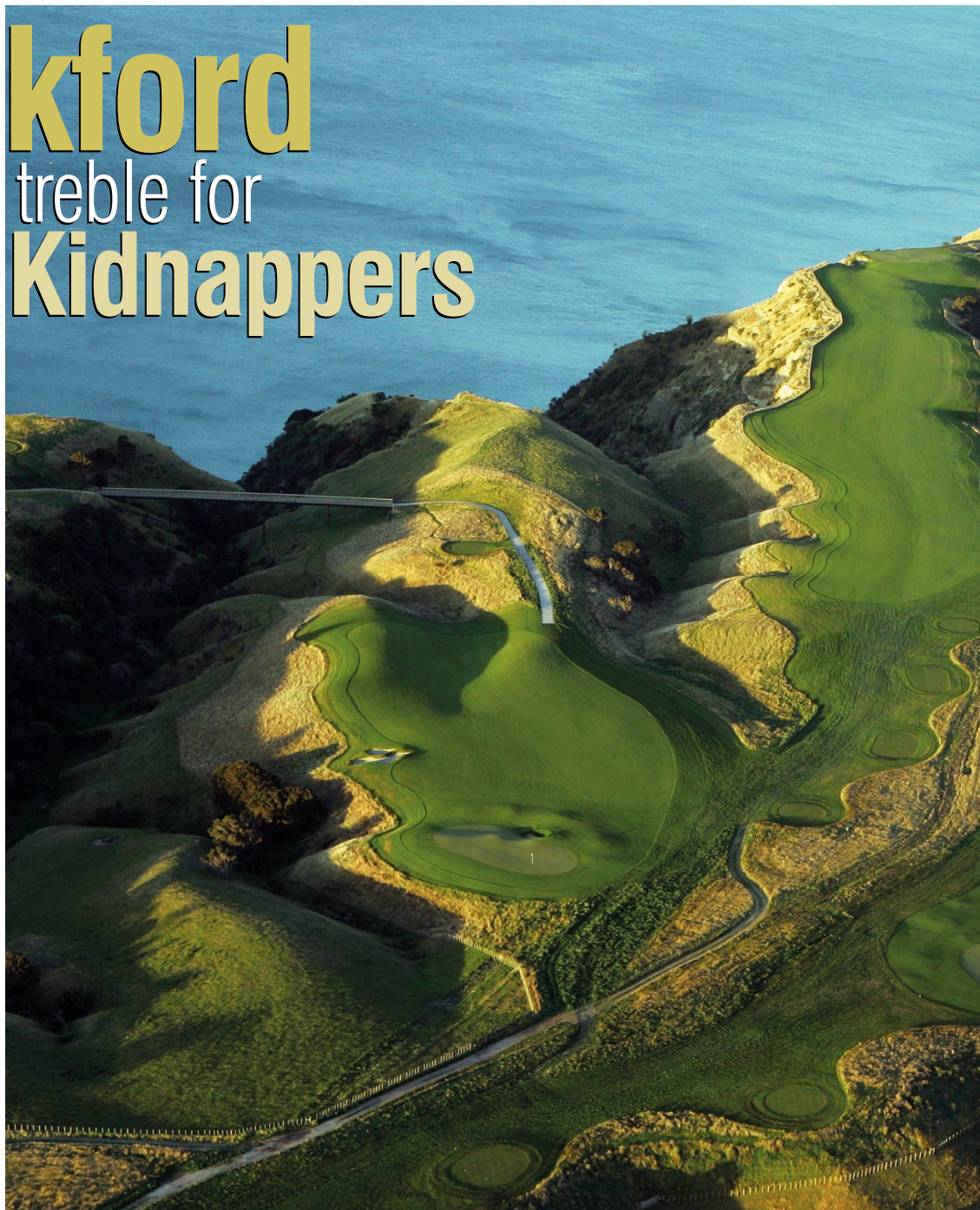
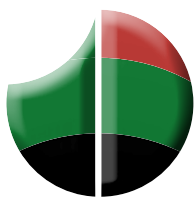
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Crockford completes treble for Cape Kidnappers

Steve Marsden created history by becoming the first international superintendent member to win the AGCSA's coveted Claude Crockford Environmental Award at the recent Australian Turfgrass Conference in Melbourne. ATM looks at Marsden's achievements during his tenure as golf course manager of the stunning Cape Kidnappers on the east coast of New Zealand's North Island.



A GCSA International superintendent member Steve Marsden has capped off a remarkable 18 months after receiving the AGCSA Claude Crockford Environmental Award, sponsored by Bayer, at the 28th Australian Turfgrass Conference in Melbourne.

The AGCSA award adds to a string of accolades Marsden and the Tom Doak-designed Cape Kidnappers Golf Course has achieved recently, starting back in October 2010 when it became the first golf course in New Zealand to achieve designation as a Certified Audubon Cooperative Sanctuary. At last year's NZ Turf Conference in Hamilton, Marsden collected the NZGCSA's Environmental Award, while earlier this year he was on hand in Las Vegas to accept the GCSAA's Environmental Leaders in Golf Award in the international category.

"I have always felt strongly that as superintendents or managers of land we need to be understanding and sensitive to the environment we manage to demonstrate to the wider community that golf courses do have a positive effect on the environment," says Marsden. "Being situated inside New Zealand's largest mainland sanctuary - The Cape Sanctuary - it is important for us to play our part in the great environmental work being carried out across the wider property."

"In a little over three years that I have been employed as golf course manager at Cape Kidnappers we have focused strongly on environmental stewardship. As a team, we have implemented some new strategies in the management of the golf course, always trying to obtain quality playing surfaces and striving to



PHOTO BY GARY LISBON

ensure that the course plays the way Tom Doak intended it to. We have made steps to achieving these things while making a positive contribution to the environment.

"I have sought to up-skill my knowledge by attending relevant educational seminars and presentations. We have also engaged with respected organisations such as Audubon International to help us formulate good practices that complement a quality golfing experience for our guests.

"We have strived to manage this great piece of land with consideration and respect and promote our success with the golfing community and the general public that a well-managed golf course is of benefit to the community."

Cape Kidnappers Golf Course was opened in January 2004 and resides among 5,500 acres (2225

hectares) of farmland known as Cape Kidnappers Station. In 2005, a joint initiative of adjoining landowners decided to create The Cape Sanctuary, which was established for the conservation of endangered wildlife and to restore native wildlife on the Cape Kidnappers Peninsula. This sensitivity to the land continues as part of Marsden's golf course maintenance operations, with particular attention afforded to water management, flora and fauna preservation and lowering pesticide usage.

FLORA AND FAUNA PRESERVATION

The Cape Kidnappers site was formerly grazed (sheep and cows). As a consequence of this, water courses and gullies have been damaged and eroded, native vegetation has declined and suitable habitat for wildlife has been compromised. A focus



Above: In a little over three years as golf course manager at Cape Kidnappers, Steve Marsden has focused strongly on environmental stewardship, resulting in three major association environmental awards

Left: Being situated inside New Zealand's largest mainland sanctuary – The Cape Sanctuary – it is important that Cape Kidnappers Golf Course plays its part in the great environmental work being carried out across the wider property



In October 2010 Cape Kidnappers became the first NZ course to achieve Audubon certification



Noxious plant weeds, such as blackberry, have been identified across the property and aggressively removed

Cape Kidnappers has promoted its environmental credentials by engaging with the local community. School children have been actively involved with the hand-releasing of wildlife, such as New Zealand's rare brown teal duck, onto the property



for Cape Kidnappers has been to restore these degraded areas with native plant species while improving habitat for wildlife with the reintroduction of native canopy cover.

An ecological report by a leading New Zealand ecologist was commissioned which provided details of the vegetation, fauna and the need for ecological restoration at Cape Kidnappers. A well-regarded local ecologist was also engaged to carry out further work specific to the vegetation through the gullies on the golf course. Noxious plant species throughout these areas were identified and aggressively removed and staff are now able to identify these weeds and have become vigilant on any new activity or regeneration.

To promote its role in the preservation of flora and fauna, Cape Kidnappers has been proactive in engaging with the local community. When endangered wildlife has been brought to the property, such as kiwi and New Zealand's rare brown teal duck, local school children have been able to experience hands-on releases, along with native tree planting projects where they are taught to understand the importance of providing a safe habitat for New Zealand's unique wildlife.

Planting work by golf course staff over the winter months has concentrated on enrichment planting of gullies. In consultation with Doak, planting work has also been carried out to bring the landscape into certain parts of some golf holes. Seed has been collected from plant material on site which is taken to a local native nursery which in turn grows these for planting on course the following year.

"Creating and restoring habitats is a very satisfying part of environmental stewardship and to date we have planted 1748 native plants," says Marsden. "We have built relations in the community with school children, parents and teachers and promoted our work to our playing guests. Endangered wildlife like kiwi and the brown teal now reside on the course and we have gained control over the invasive and exotic species that were once in significant numbers."

WATER MANAGEMENT

Water consumption is a key environmental concern for all golf courses and the goal at Cape Kidnappers is to reduce water use. This is being achieved by improving water quality, naturalising areas on the golf course that allow for the reduction of sprinklers, reducing thatch levels and improving soil structure.

Tom Doak's consulting agronomist Dave Wilbur made references to the soils on the Cape Kidnappers site as being "compacted and lacking tilth and structure, indicating heavy soil de-flocculation... Under typical golf course irrigation this soil will be hard to manage in its current state".

This lack of structure is evident throughout the year. In winter the soils become heavy during periods of rain as infiltration is slow, while in summer these soils are difficult to re-wet after they dry out. During the summer months when irrigation is required it becomes a balance of offering firm fairways and surrounds while ensuring no turf cover is lost. Extensive and irregular dry patch is a challenge during the summer months and overwatering of the golf course can be very easy.

Work has been undertaken to improve water quality drawn from bores which indicated high bicarbonate levels along with a high pH. The introduction of acid injection has improved water quality. The application of granular gypsum to fairways and the implementation of thatch control will further help improve water infiltration and penetration. Marsden has stretched out watering cycles with the use of broad spectrum wetting agents along with isolated hand watering of fairways with wetting agent tablets.

The introduction of soak cycles (a pause or break among a sprinkler run time) has also helped water penetration and reduced runoff. Annual auditing of the irrigation system and the on-site weather station are also important parts of the course's water management strategy. The recent purchase of a SPS moisture meter will further assist in regard to monitoring moisture in greens, putting more emphasis on hand watering.

CHEMICAL USAGE

Cape Kidnappers' goal is to utilise an integrated pest management approach to keep turfgrass pest populations below levels that are economically and aesthetically damaging, without creating a hazard to people and the environment.

Marsden has sought to use low toxicity products and further evaluation is continuing which will assist the club in the selection of the most effective, but safest option. The use of new products with low risk chemistry has been implemented with products like Acelepryn which has a favourable environmental and toxicological profile and low toxicity to most non-target animals. This is particularly important in the club's quest to provide a safe environment to the wildlife on the property.



Annual auditing of irrigation uniformity along with ongoing thatch control programmes and gypsum applications have ensured that water applied is made available to the plant more efficiently



The introduction of pure fescue roughs, which involves the removal of the colonial bentgrass, is also ensuring long-term a more simplified management to these areas by allowing easy removal of unwanted grass weeds. The pure fescue not only provides improved playability for golfers, it also requires less water and provides reduced incidence of the disease Melting Out.

Fertiliser applications to greens and tees are all foliar (except at renovations), with sulphate of ammonia, sulphate of potash, magnesium sulphate and chelated iron and liquid seaweed extract as the main ingredients. The addition of manganese has assisted with Take All prevention over late spring and summer. Fairways are also foliar fertilised, minimising leaching to ground water. With just over 50kg N/ha/yr applied, applications are modest.

"We have established sound cultural practices, improved our observations/scouting of pest populations and have put in place acceptable and unacceptable threshold levels for all playing surfaces," explains Marsden. "We have looked at the suitability of our turf types and implemented changes where necessary."

"Ultimately the focus of our course maintenance operations here at Cape Kidnappers is to produce high quality playing surfaces. At the same time we are looking to employ management practices that minimise or eliminate the potential for negative impacts to the environment and the surrounding property. We also ensure we are compliant with all appropriate legislation and constantly re-evaluate our processes to achieve the highest standards of environmental excellence." 🌱



Monitoring of water quality (pictured is the dam on the 10th) is a regular part of the course's water management strategy



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Through the work of course superintendent Ben Tilley and his crew, Headland Golf Club has grown to be recognised as one of the best presented courses on the Sunshine Coast

Tilley takes Headland to higher ground

In winning the 2012 AGCSA Excellence in Golf Course Management Award, Headland Golf Club's Ben Tilley has become just the second course superintendent to collect the AGCSA's two most sought after awards.

While Steve Marsden created his own slice of history by winning the AGCSA Claude Crockford Environmental Award, popular Headland Golf Club course superintendent Ben Tilley also etched his name among the industry's elite at the recent Australian Turfgrass Conference.

Tilley, who has been employed as superintendent of the Sunshine Coast golf club since April 2007, received the 2012 AGCSA Excellence in Golf Course Management Award, sponsored by John Deere, adding to the AGCSA Claude Crockford Environmental Award he won while superintendent at Beerwah Golf Club back in 2000.

Tilley won this year's award ahead of strong challenges from fellow finalists Max Lavery (Redland Bay Golf Club, QLD) and Jon Carter (Wanneroo Golf Club, WA) and becomes just the second superintendent to win both the Excellence and Claude Crockford awards, joining Avondale Golf Club's David Warwick who completed the double in 2004 (Claude Crockford) and 2010 (Excellence).

Tilley becomes just the third Queensland course superintendent to win the AGCSA Excellence in Golf Course Management Award since it was inaugurated back in 1990. He joins former Gold Coast Burleigh Golf Club superintendent Jeff Gambin and fellow Sunshine Coast superintendent Pat Pauli (Horton Park Golf Club) who won their awards in 1995 and 1999 respectively.

For winning the award Tilley receives \$3000 to put toward a study tour to the United States courtesy of award sponsor John Deere. This study tour will include a visit to the TPC Deere Run championship golf course in Illinois which hosts the annual John Deere Classic PGA Tour event.

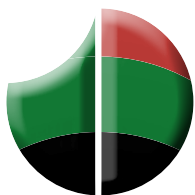
Tilley was nominated for the 2012 AGCSA Excellence in Golf Course Management Award by Headland Golf Club secretary manager Ben Dobson, with glowing recommendations from club president John Joseph and course director Alec Meares. All were highly complementary of Tilley's course management efforts which were ultimately rewarded back in 2009 when Headland was named Queensland Golf Club of the Year at the Queensland Golf Industry Awards.

"The AGCSA Excellence in Golf Course Management Award is just reward for Ben who puts his heart and soul into the job and who brings golfing pleasure to the members of and visitors to Headland Golf Club," says Dobson. "During Ben's time he has taken the golf course at Headland to another level – and at times under some of the most challenging circumstances."

Course director Meares has worked closely with Tilley during his tenure and in his nomination letter commented that Tilley's skill and enthusiasm as a superintendent was largely the reason behind why Headland had developed into one of the region's leading courses.

"Ben brought with him a strong work ethic, a solid background of experience and a clear attention to detail," says Meares. "He has exhibited a high level of technical skills particularly in the management of the greens which has resulted in a consistent surface appreciated by club members. During Ben's tenure the club has experienced extreme drought and flooding rains, but his management has allowed the course to be playable at all times."

"Ben's 'people' skills are remarkable. He has moulded a multi-skilled work force and developed



JOHN DEERE
GOLF

a strong club members' Volunteer Working Group. At all times he is willing to talk to members either singly or as a group and regularly issues newsletters explaining the planning and purpose of major course works."

Adds club president John Joseph: "Ben's most valuable work has been his staff management. Led by Ben, the staff now carry out almost all work associated with tee and bunker construction, as well as concrete paths. The leader in a team of eight, Ben gets 100 per cent effort out of all of his small team and has instilled in them a rigorous attention to detail to achieve high standards."

THE NEXT LEVEL

Tilley currently manages the Headland course with a staff of seven which includes assistant superintendent Brad Beetson. With over 1000 members, Headland is a busy course and pumps through in excess of 60,000 rounds per year.

Tilley's brief during his initial interview for the Headland job was to continue to develop the golf course (within budget) to become the club of choice on the Sunshine Coast for both golfers and employees. Having spent the previous six-and-a-half years as assistant at nearby Twin Waters Resort, Tilley has tried to instil a resort presentation mentality at Headland, constantly striving to attend to the 'one percenters' (e.g.: blowing tees and greens daily, no rubbish, tee markers uniform width and aligned properly).

Since arriving in 2007 Tilley and his team have undertaken a raft of course improvement projects. They have constructed six new tee complexes and completed other single tee refurbishments with Grand Prix couchgrass and incorporated new concrete buggy paths, all of which has been constructed in-house. A number of bunkers have also been refurbished in line with the 2004 course Master Plan drawn up by Pacific Coast Design principal Phil Ryan. Most importantly for club management, Tilley has managed to complete all of these projects within budget.

"We have migrated to Grand Prix as our preferred surface on tees and so far it is performing very well," says Tilley, who earlier in 2012 won the GCSAQ Achievement Award at the Queensland Golf



Ben Tilley added to his 2000 AGCSA Claude Crockford Environmental Award by taking out the 2012 AGCSA Excellence in Golf Course Management Award in Melbourne

Industry Awards. "I do have some microclimates that are influenced heavily by shade which makes for a very challenging environment to grow grass in. We still have some conversions to complete, but they will only be a change of turf rather than complete rebuild."

The removal of carpetgrass (*Axonopus affinis* and *A. compressus*) from the fairways has also been an ongoing project during Tilley's time at Headland. In a bid to maintain a clean mono-stand of Greenlees Park couch, the removal programme has taken a number of forms. Larger areas had two applications of glyphosate before being ripped to 150mm with skid steer loader rippers to loosen up the profile, then raked and levelled with a bunker rake. All loose debris was removed and then sections of fairway and rough were scarified to produce enough stolons to cover the prepared area. Despite the obvious down time for grow-in, this process has been successful in achieving consistency of cover.

Smaller sections of carpetgrass have been hit with glyphosate, removed with a sod cutter and replaced with solid turf from Roberts Turf Farm at Chevallum. Other methods of control have been

During Tilley's five years at Headland a number of projects have been undertaken in line with the 2004 course master plan developed by Pacific Coast Design. A number of tees have been reconstructed and converted to Grand Prix couch





Bunker refurbishment has also been among the array of course improvement works



The Headland course volunteer group has also formed into a hard-working team under the guidance of Tilley

Along with the tee reconstruction work, concrete buggy paths have been installed, all of which have been completed in-house



herbicide-based with initial broad area spraying. Tilley now only concentrates on selective spot spraying with a hand gun from a 400L tank. He has also applied dolomite at 5T/ha to improve pH levels and encourage an environment that the carpetgrass won't tolerate.

"The reduction in carpetgrass contamination has improved the playing quality and presentation of the fairways and the members are experiencing a higher standard of playing surface," says Tilley. "We still have some improvement to go but we are heading in the right direction."

Tilley's greens nutrition programme follows a high carbon, low nitrogen approach. Regular tissue testing forms an important component of this approach, giving Tilley a guide to the plant's nutrient uptake and deficiencies. Tilley has a strong focus on improving soil biology with regular applications of fungal and bacteria brews and liquid Vermicast.

"My greens are by no means always blemish-free and not the greenest or lushest going around, but the members are used to sacrificing the visuals for smooth, true surfaces," says Tilley. "My mowing heights vary from 3mm in the growing season to 5mm in the dormant months. I substitute mowing with rolling in the cooler months and even though it may raise some eyebrows with the 5mm height, we can still maintain green speeds around 10ft with regular rolling while preserving a longer leaf through the months where there are shorter daylight hours."

As well as the on course work, as mentioned earlier some of Tilley's greatest accomplishments

have been his ability to engender a strong work ethic among the maintenance team, as well as develop strong relationships with the members through regular communication and interaction.

He is proactive in communicating with members through the club's newsletter and website and is open to talking to various sectors of the membership to explain his course management strategies. The member's volunteer group, which comes in every second Friday, has also formed into a hard-working team under the guidance of Tilley who has found that they have become a great conduit through which to communicate course maintenance information back to the membership.

Tilley's approach to staff management has always been to allow his charges to take ownership of the course. As Tilley comments, he doesn't want robots working for him and actively supports them to make decisions regarding course maintenance.

Tilley is particularly aware of providing a safe, enjoyable and active learning environment for his staff. He also takes an interest in their lifestyles away from work and, within reason, will accommodate them on weekend rosters.

Tilley has developed a machinery replacement programme which now ensures that roughly the same amount is spent on machinery replacement every year and that the machinery available to the staff is of the highest quality. He also adheres to strict WHS regimes and, as his past Claude Crockford Award demonstrates, has an acute awareness of the environment. Headland has implemented the e-par environmental management system and currently maintains platinum membership status.

With the support of the management, Tilley regularly has staff bonding sessions, whether over a BBQ or golf afternoons at other clubs to look at the presentation and work routines of those courses. Off-site training for staff in their various fields to help develop a broader skill set is also important and last year Tilley's apprentice worked as part of the crew at Cooloom for the Australian PGA Championships.

"I know all these things aren't possible at all clubs, but it works for us and the Board fully supports these initiatives," says Tilley. "Such a philosophy has really benefited our quality control and all the staff take pride in the presentation of the course and do a fantastic job." 🌱

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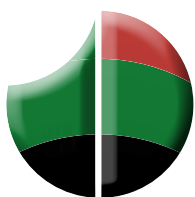




Sebastopol Bowling Club in Ballarat, Victoria, boasts two bentgrass greens and one synthetic. As part of his Diploma in Horticulture course, greenkeeper Scott Roberts undertook a study to compare surface temperatures on the two different surfaces during hot weather

Academic award has Roberts on a roll

After going the way of golf course greenkeepers in the past two years, the 2012 AGCSA Award for Academic Achievement has been bestowed upon up and coming Victorian bowling greenkeeper Scott Roberts.



PGG Wrightson Seeds

Highly regarded Sebastopol Bowling Club greenkeeper Scott Roberts has become the third Victorian Diploma of Horticulture graduate in as many years to win the AGCSA Award for Academic Achievement, presented in partnership with PGG Wrightson Seeds. The award was struck back in 2010 and Roberts, the first bowling greenkeeper to win it, joins inaugural winner Steve Johannessen and 2011 recipient Tim Fankhauser who both hailed from Victoria's Mornington Peninsula.

Roberts, who completed his course through The University of Ballarat, beat a field of four other fellow graduate students – Craig Geeve (NSI Ryde College), Ben Lucas (Wodonga TAFE), Kane McCartin (Chisholm TAFE) and Gerri O'Callaghan (NMIT) – and in doing so will be rewarded with a trip to New Zealand courtesy of PGG Wrightson.

Roberts only began his greenkeeping career in 2005 despite having played bowls for some 25 years. Playing from a young age, Roberts quickly took a shine to the game and over the years tasted much success, including picking up an Australian title in the early 1990s. In 2011, while undertaking his diploma course, Roberts won the Ballarat Region Pennant grand final with the Sebastopol team and finished runner-up in the state pairs championships.

Prior to his career in turf Roberts worked in a foundry, but his love of the game convinced him

to switch to greenkeeping and in a short space of time he has become highly regarded both within the classroom and out on the greens. During his studies Roberts was appointed greens manager at Sebastopol and as well as looking after the club's two bentgrass greens and one synthetic green, he also helps maintain the turf greens at two other local bowling clubs.

Such a role facilitated the need for Roberts to expand his turf management knowledge and when respected turf management teacher Phil Ford announced he was starting up a one-off diploma programme through The University of Ballarat from 2009 to mid-2011, Roberts was the first to sign up.

"When my initial horticulture traineeship started in 2005 it was based on all aspects of horticulture which gave me a solid base of industry knowledge," reflects Roberts. "However, most units only touched the surface in regards to turf management and didn't go in depth enough in order to help me provide first class greens at Sebastopol."

"When Phil notified me that he was starting the diploma course I jumped at the chance to enrol. As well as Phil's immeasurable knowledge and great respect, an enormous advantage of doing the diploma was the knowledge the course's seven other students possessed and their willingness to share their advice. It was a fantastic environment for me in which to learn."

"With Phil's training and course guidance I learned more in the first six months of my diploma course than all my previous time in my traineeship. One such example is having a clearer understanding about pest and disease management to the point now that if a problem arises I am fully confident of what course of action is required."

Ford, who has had a long career teaching the next generation of turf managers (which was recognised at the 2011 AGCSA Awards when he was bestowed the AGCA Distinguished Service Award), knew that in Roberts he had a student who showed plenty of promise and greenkeeping nous.

"During his diploma studies Scott achieved excellent results in his exams and assignments,"

says Ford. "What impressed me most was how readily Scott applied the skills and knowledge gained in the diploma course to the management of his greens. As a teacher that is the most satisfying result – seeing someone apply their learning directly and practically and achieve good results.

"Scott's research trial was an example of his uncomplicated approach. He identified a problem of excessive heat on synthetic bowling greens, found there was little local research on the topic, devised a simple but fair and unbiased trial, collected data and applied the relevant statistical treatment.

"His final report is clear and indisputable. It has already been forwarded on to Bowls Victoria and Bowls Australia and I think it will have enormous ramifications for the use of synthetic turf in bowls and other sectors of the industry."

FEELING THE HEAT

Roberts' report – titled '**Bentgrass and synthetic bowling green surfaces: A comparison of surface temperatures**' – was completed as part of his diploma course. The study had two aims:

- To compare surface temperatures on grass and synthetic surfaces during hot weather; and
- To discuss the impact of the study's findings on the current RVBA 'Heat Policy' for Pennant play.

Using his home club Sebastopol and Central Wendouree Bowling Club (also in Ballarat) as research locations, Roberts undertook three tests on 31 December 2010. Fifteen surface temperature readings were taken on a bentgrass green at Sebastopol Bowling Club with the process repeated on the club's neighbouring synthetic green. Roberts then travelled the short distance to Central Wendouree Bowling Club where he took similar readings on their carpet surface.

The ambient temperature was recorded using a standard Stevenson Screen temperature box which at the time of the study was 37.8°C. Surface temperatures were measured with an infra-red thermometer, with the 15 measurements taken at randomly selected locations on each green. The results showed that the mean surface temperature of the natural turf greens was 34.5°C, significantly lower than the synthetic grass mean of 66.4°C and the carpet green of 68.1°C (LSD = 5.1°C).

Robert's study backed up previous research which had demonstrated that synthetic surfaces are significantly warmer than bentgrass surfaces. His results also offered further confirmation of the long-held anecdotal belief voiced by bowlers who play on synthetic surfaces that they are hotter to stand and play on than turf greens. Such high levels of heat has the potential to endanger the physical health and wellbeing of some players.

Roberts noted that it was important that Bowls Victoria was made aware of the study and encouraged the RVBA to urgently consider rewording the contents of its existing heat policy in order to make sure bowling clubs and their

governing association are better able to meet their obligation to exercise the highest possible level of duty of care to all who play on synthetic greens.

Roberts concluded by saying he would also argue that any move to revise the existing heat policy offers an ideal opportunity to re-introduce an incentive to bowling clubs wishing to retain their existing grass bowling greens.

As well as the report being sent to Bowls Australia and Bowls Victoria, Sebastopol Bowling Club were so impressed with Roberts' report that it has included in its 10-year future plan a provision to construct a roof over the synthetic green in order to improve player welfare as well as safeguard against Ballarat's unpredictable weather.

"During my bowling career I started noticing an increasing number of synthetic surfaces entering the sport," says Roberts. "At first it was a novelty with most clubs keen to try something different. Unfortunately, synthetic surfaces are cleverly advertised as a cost efficient way for clubs to save money. However, in my experience, this is not the case. I want to present a reputable case for turf as a cost effective alternative to synthetic surfaces which can only be achieved by continuing to produce high class turf bowling greens.

"In my job at Sebastopol I also maintain, with the help of volunteers, turf greens at two other clubs. These clubs previously were struggling to present respectable natural greens. Many small clubs are without full-time greenkeepers and have two important factors to consider – financial costs and labour. Currently I am working hard to keep costs down and presenting good surfaces which are not overly labour intensive or rely heavily on chemicals.

"By developing good turf management practices with reduced labour and overhead costs there will be strong budget savings without compromising quality. By utilising machinery across the three clubs we have reduced capital costs per club. Also by having a trained person using the machinery/managing nutrition/controlling chemical usage, we are increasing efficiencies at all three clubs. 🌱



2012 AGCSA Award for Academic Achievement recipient Scott Roberts

By undertaking the diploma course and improving his turf management knowledge, Roberts has been able to present first class greens for the Sebastopol Bowling Club members





Adelaide Shores is the home of 2012 AGCSA Graduate of the Year winner David Canterbury (right) who was appointed assistant superintendent after serving his apprenticeship at Kiama Golf Club



Graduates top of their class

David Canterbury and Rory Bairnsfather-Scott collected the respective 2012 AGCSA and STA Graduate of the Year Awards in Melbourne and in early 2013 will be packing their bags to attend the University of Massachusetts Winter School for Turf Managers in the US courtesy of award sponsors Toro.

Adelaide Shores course superintendent Tim Warren must have known he was on to a good thing when he gave a young lad from regional NSW a break back in 2011. Appointing David Canterbury as his assistant at Adelaide Shores, one of the state's busiest golf facilities, Warren was impressed by the young greenkeeper's credentials which had been honed during his time at Kiama Golf Club on the south coast of NSW.

Canterbury has failed to disappoint since starting and after winning the NSWGCSA Vince Church Graduate of the Year Award back in March 2012 continued to shine at the recent Australian Turfgrass Conference in Melbourne where he beat five other state finalists to win the AGCSA's coveted Graduate of the Year Award, sponsored by Toro.

Canterbury hails from the town of Moss Vale in the NSW Southern Highlands and undertook his apprenticeship at Kiama Golf Club and Yallah TAFE, initially under superintendent Scott McLaurin and then Mark Yates. Canterbury credits his brother-in-law and former Kiama apprentice Michael Nichols for getting him into greenkeeping and for aspiring him to continually improve his knowledge and skills.

Despite only being a second year apprentice and 19 years of age, in 2010 Canterbury was appointed as Kiama assistant superintendent, taking over from, ironically, Nichols. Yates had little hesitation in elevating Canterbury to assistant and he quickly became an integral part of management.

"As far as experiences go, this was one of the greatest," reflects Canterbury (21). "As Kiama is only a short course with a small team, it was a great course to learn the ropes in a managerial role. Not long after I was appointed, Mark welcomed the birth

of his third child and took some time off, leaving me in charge over Christmas/New Year.

"I managed to keep the course alive and functioning with the only complaint from the golfers being that the rough was too long! This was a real confidence boost for me and was proof not only to Mark, but to myself that he had made the right call."

Although the assistant's position at Kiama was extremely rewarding, Canterbury was keen to further his career and in late 2011 he got the break he was looking for. Adelaide Shores superintendent Tim Warren was looking for an assistant and Canterbury duly applied, although not confident of how he would fair. He need not have worried.

"If you had asked me three years ago where I would be at the completion of my apprenticeship, I would never have dreamed I would be 2IC at the largest, most popular golfing establishment in South Australia," says Canterbury.

"My responsibilities at Adelaide Shores are similar to Kiama but with a few key differences, the first of which is the scale of the operation. Adelaide Shores pumps through 100,000 rounds of golf annually, which means my focus is on maintaining the courses and presenting premium surfaces that can handle the massive influx of golfers.

"As the assistant superintendent of such a large golf park, my managerial responsibilities are far greater than that of Kiama. The Adelaide Shores organisation is a government-managed facility and the golf park is no exception. The reality of this is that Tim must devote a great deal of time to meetings, budgeting and general office work, leaving the physical responsibilities of the golf course to me.

"I am relied upon to give a detailed analysis of both courses, providing Tim with an accurate assessment of course conditions and my personal recommendations for future actions."

During his time at Adelaide Shores, Canterbury is looking to further his skills by undertaking the Diploma of Sports Turf Management course, as well as continue to pass on his knowledge and experiences to help future turf managers.



"I currently supervise three highly competent apprentices and take great joy in knowing that I am helping to build their careers," says Canterbury. "Using knowledge to run a golf course is a great thing, however, I believe all of my mentors would agree that it is even more rewarding to share that knowledge and witness the success of a pupil."

"Long-term my aspirations are to one day become superintendent of a top metropolitan course. While I know that this won't be achieved overnight, I believe that with the right amount of perseverance, dedication to the job and passion for the industry, that I might one day get that chance."

WACA WONDER

Rory Bairnsfather-Scott has become the second winner of the STA/TGAA National Sports Turf Graduate of the Year Award, also sponsored by Toro, which was presented at the Melbourne conference. Bairnsfather-Scott, the first finalist put forward by TGAA WA for the award, pipped fellow finalists Logan Booby (NSW), Tim Hunt (VIC), David Sampson (SA) and Damien Miller (ACT) to join inaugural recipient Rebecca Dynon.

For the past three-and-a-half years, Bairnsfather-Scott has been employed by the Western Australian Cricket Association (WACA). While studying horticulture, he started working two days a week at a local bowls club and after completing his Certificate II began a turf management apprenticeship under WACA curator Cameron Sutherland. Such was his



dedication that he picked up the CH Bailey & Son Shield Award for technical and further education at the completion of his apprenticeship.

Bairnsfather-Scott has been involved in assisting the redevelopment of the WACA's wicket block, the construction of the Murdoch University playing fields and assisting in bulk density testing of the wicket block. His long-term ambitions include travel to further his career and experiences with wickets and turf in different conditions. 🌱

National Sports Turf Graduate winner Rory Bairnsfather-Scott (right) with STA VIC president Nathan Tovey

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Glenden Golf Club is a nine-hole course located in the coal-mining town of Glenden, about 180 clicks west of Mackay. During his time at Glenden, Wade Cranston has undertaken various small reconstruction projects around the course including changes to the green and surrounds on the par 4 7th pictured



Glenden Golf Club QLD

A passion for playing the game of golf got Wade Cranston interested in greenkeeping as a teenager. Now more than 15 years into his turf management career, Cranston calls the small coal-mining town of Glenden in Queensland home where he is in sole charge of managing the town's nine-hole golf course and bowling green.

Superintendent: Wade Cranston.

Nickname: Fader.

Years as a superintendent: Seven.

Years as an AGCSA member: Three.

Turf management career: Mackay Golf Club (groundsman, 3 years); Indooroopilly Golf Club (groundsman, 16 months); Mackay Golf Club (apprentice greenkeeper, 4 years); Harbortown Golf Links, South Carolina, USA (Ohio internship, 5 months); Glenden Golf Club and Glenden Bowls Club (superintendent, 7 years).

Turf management qualifications: Certificate III Horticulture (Turf Management) through Grovelly TAFE, Brisbane.

Where in Australia is Glenden and what is the town famous for? Glenden is located about 180 kilometres west of Mackay in the coalfields of central/north Queensland. Apart from coal production, the town is known to have the best golf course in the region!

Give us a bit about your background in turf management and how you came to be superintendent at Glenden Golf Club. I started playing golf at the age of 10 and as a result my passion continued on to the greenkeeping trade. By the time I was 16 I was very interested in what was going on with the course and how the greenkeeping staff achieved their results. I would volunteer my time in helping the staff during school holidays until I finished school in 1993, after which time I was able to start permanent part-time work as a groundsman under superintendent Eric Rickman at Mackay Golf Club.

I moved south to Indooroopilly Golf Club in Brisbane to improve my golf game. I worked full-time as a groundsman and played two Pennant seasons for the Division 1 team. I soon realised that I wanted to pursue greenkeeping and returned to Mackay Golf Club to complete my apprenticeship. I really enjoyed the work ethic and camaraderie within the working crew while in Mackay.

After finishing my apprenticeship I applied for an internship through the Ohio State University and was accepted to work at Harbortown Golf Links in South Carolina. After five months there I was made aware of a position being available in Glenden. I was already aware of the layout of the course as I had played in previous Glenden Opens. Soon after my return to Australia I began working at Glenden in September 2005. As an extra challenge, I also maintain the Glenden Bowls Club green and as a result have now taken to playing lawn bowls as well!

Give us an overview of Glenden Golf Club and some of its unique characteristics? Glenden Golf Club is a good challenge to all golfers as it has alternate tees on every hole except the 1st/10th. The unique thing about the course would be similar to that of other small rural courses in our region. The rough is thick and lush through the wet season and hard pan, exposed rocks in areas and dead dry tufts of grass through the dry months. The fairways are lined with native trees from our region.

The course was designed in 1985 by two local mining workers who thought that Glenden would be a better place for having a nine-hole golf course. The course has been built on the lie of the land with a natural creek that has to cope with the town's run-off and storm water. Parts of the course have more topsoil than others and the soil profiles are erratic with rocks in the mix.

The tees and greens have been built from local creek bed soil which is a sandy silt loam. The greens have become easier to manage with more regular aerating and the introduction of imported dune sand from Mackay. This has improved root depth, drainage and the uptake of nutrients to the plant. Having healthier greens has made weed eradication easier with selected herbicides too, with shorter recovery time of the 328.

Take us through your turf management operations there and how you have fine-tuned them during your time as superintendent. The best things I have done in regards to turf management is to convince the members to purchase an aerator and topdresser. I can now do renovations when I have to instead of waiting for a contractor to line up with the other courses in the area. Aerating the greens with light dustings between renovations has really helped the greens stay healthier and play better all year round.

What special environmental considerations do you have to incorporate into the management of the course? The only environmental consideration to worry about is limiting how much overflow or run-off from our effluent irrigation water reaches our waterways. Overflow from our holding dam is hard to control during wet seasons.

What are some of the major challenges facing Glenden Golf Club both from a turf management perspective and general club management perspective? Since I have been at Glenden, the



Glenden Golf Club has been home to course superintendent Wade Cranston for the past seven years

Glenden Town Club has amalgamated both golf and bowls clubs under the one umbrella. This has taken the financial burden off the two smaller clubs and their respective committees.

The main focus now for the clubs is to promote their sports by hosting more events and bigger tournaments. The clubs are required to try and raise as much revenue as possible. Both receive substantial amounts of funding to purchase machines and the general upkeep of the clubs and greens. We also receive regular donations from our community coalmine Xstrata Coal.

Outline any major course improvement works completed in the past couple of years and

AT A GLANCE - GLENDEN GOLF CLUB, QLD

Course specs: Nine holes with alternate tees (6198m for 18 holes, par 72). Approximately 18-20 hectares of managed turf comprising of 328 couchgrass greens, Queensland blue couch tees and fairways. Roughs are a mix of blue couch, paspalum and differing natural weed varieties.

Members: 90.

Annual number of rounds: 5000-6000.

Major tournaments/events held during the year: Glenden Open (Amateurs) in April, Glenden Pro-Am (June), Holden Scramble (July) and Glenden Classic (4BBB Open) in October.

Annual course budget: \$150,000.

Staff structure: Sole qualified greenkeeper plus volunteers who are able to maintain the roughs and help with jobs when major events are on.

Climate: September-April between 25-40+ degrees; May-August between 0-25 degrees. Annual average rainfall 800mm-1000mm.

Soil types: Silt/clay and rock.

Water sources: Treated effluent pumped into

a secured storage dam located in the middle of the course.

Irrigation system: Course ring main is 100mm PVC with variances of 100mm AC piping. Fairways are 80mm PVC, one main line down the middle of the fairway with Toro 670 valve-in-head sprinklers. Tees are 25-40mm PVC lines with Delrin 235's and 250's impact sprinklers. Greens are 40-50mm PVC lines with 250 Delrin impact sprinklers. Toro solenoids for tees and greens being 25-50mm.

Cutting heights: Greens (3.5mm), tees and surrounds (12mm), fairways (18mm) and rough (30-40mm).

Renovations: Our major renovation is carried out during October/November. Greens are scarified twice with a manual walk-behind scarifier (blades 6-7mm apart) at 5-6mm depth. We then use reno scarifying heads on an old greens mower (blades 25mm apart with brushes in between for sweeping into catchers, at 7-8mm depth) as many passes as necessary. Greens are then topdressed

with sand approximately 12mm thick. Greens are aerated with 12mm solid tines at least 8 inches deep and sand/gypsum/fertiliser broomed in with 60mm broom heads. Two passes or more if necessary during early stages of recovery.

A minor renovation, if necessary, is carried out in February/March. We run two passes with scarifying heads on the greens mower and then mow. Topdress with sand approximately 5mm thick then manually broom in two passes. We will aerate greens normally twice a year outside major renovation with either 12mm solid tines at 4-6 inches deep or 8mm tines at a 4 inch depth. During the warmer months we groom greens when necessary.

Major disease pressures: Black and white helminthosporium and dollar spot are our major issues which I treat with Penncozeb and Thiram mixed together. Pythium is treated with Rovral GT or Banner Maxx. Dry patches are treated with Aquaforce or Revolution in bad cases.

The Glenden course was designed in 1985 by two local mining workers who thought that the township would be a better place for having a golf course. Pictured is the approach into the 1st green



highlight any ongoing or future works that the club is undertaking. In 2008 I reconstructed our par 5 4th green using the existing irrigation. The course's first two bunkers were built on that same green complex. The green now consists of two tiers, making it far more playable than previous.

In 2009 I constructed two greenside bunkers, complete with drainage, on our par 4 1st. With the soil removed to create these bunkers I built a new mound in front of the green as well.

In 2010, I reconstructed the par 4 7th green using soil to form mounds in the surrounds. The green, which is now kidney-shaped, was made flatter and has all new drainage and irrigation lines. Future plans include the construction of a bunker on the par 3 8th hole.

Water is obviously a critical issue around the country at present and for country superintendents is probably even more critical.

How is Glenden faring in the water management stakes? Our club is lucky enough to have a more than sufficient supply of effluent water. Even though effluent provides other challenges with irrigation and turf management, it still does a great job keeping our course green and in a healthy condition.

What are some pros and cons of being a regional superintendent? Being a regional superintendent, I've found that it's very rewarding making improvements to the course. Having worked at Mackay and Indooroopilly golf clubs, I've noticed that you receive more recognition for good work and not as many negative comments about your work and the course.

The challenges here at Glenden would be the availability of resources which are very scarce and as a result you have to order well in advance to have things when you need them. And, of course, you usually pay extra for freight.



Glenden hosts a number of major events throughout the year including its annual Pro-Am which is constantly rated among the state's best regional events

Tees and greens at Glenden have been built from local creek bed soil, which is a sandy silt loam. The greens have become easier to manage with more regular aerating and the introduction of imported dune sand from Mackay



It is also very difficult to hang on to an apprentice greenkeeper due to the pay in comparison to the mining companies in the region. I don't blame the young people for leaving, but it is becoming harder to train someone and spending a lot of time, effort and money on them, only for them to leave. I have now resigned myself from the idea of having an apprentice and rely wholly on what help I can get from volunteers.

Are expectations of course presentation and conditioning any less than that placed on your metropolitan counterparts? The members of the club are very happy, as are the travelling players from the PGA who play in the annual Pro-Am. We have hosted a Pro-Am event for the past five years and in every one of these have been nominated as the best event. This is in large part due to the condition of the course which has been labelled as 'the best conditioned regional course in Queensland'.

If you could change one thing about your job as a regional superintendent, what would it be and why? I wouldn't change a thing in regards to the terms or conditions I work under. As with any job you have your good days and bad days, but there are many benefits to working in a town such as Glenden.

How important are the relationships you have with other nearby regional course supers/trade reps? I regularly keep in touch with other superintendents around the area and volunteers. Even now I still find that I am able to learn new techniques by communicating with others. I firmly believe that it is important to maintain contact where we can trade information and keep up to date with the latest products that are made available to ensure that the high standards at Glenden Golf Club are maintained.

What have you got in your shed?

- John Deere 2500D greens mower;
- John Deere 3365 fairway mower;
- John Deere 1070 tractor with roller mower;
- John Deere 6x4 diesel Gator;
- Jacobsen GK4+ tees and surrounds mower;
- Wiedenmann greens Terraspikes aerator;
- Cushman topdresser;
- New Holland T1520 tractor with slasher; and
- Viking 42-inch ride-on mower.

At the top of my machinery wish list would have to be a bobcat. At present I have to borrow local machinery when it is made available.

Do you think regional superintendents have a better work-life balance than their metro counterparts? Both regional and metro superintendents have their own benefits. I would really like to have staff working under me to assist



with the day-to-day running of the course and major renovations when they arise, however, at the same time being your own boss does have its benefits (as long as you have dedicated volunteers who are willing to spend their time helping out). The distance between Glenden and the nearest major centre (Mackay) is an inconvenience, but on the whole I am very happy here doing what I am doing.

Favourite spot on your course? The bottom of the 5th hole. You can look back and pretty much see the whole course. The green is in great condition, as is the ribboned fairway.

Most rewarding moment during your time as Glenden superintendent? It would have to be showcasing the course to any visiting pros or members from other clubs. The regular high praise feedback I receive in regards to the course management ensures that I maintain a high level of motivation as I know that the course is heading in the right direction under my leadership.

Name three golf courses (they can be in Australia or overseas) that you would like most to visit and why? Augusta National, St Andrews (Old Course) and Cape Schanck in Victoria (it has some very challenging holes from what I have seen in magazines and golfing journals). 🌿

Glenden comprises between 18-20 hectares of managed turf with 328 couchgrass greens and Queensland blue couch tees and fairways

OFF THE COURSE - WADE CRANSTON

Any interesting hobbies/past-times away from turf? I have just started playing lawn bowls over the past year. I have worked on the bowls green here for the past seven years but never thought of playing the sport until recently. It is now fair to say I am hooked.

Favourite sporting team: North Queensland Cowboys (NRL) and Brisbane Lions (AFL).

Favourite golfer: Greg Norman.

Handicap: Three, but on the rise. I have been down to 1 previously.

The best thing about Glenden apart from the golf club is... the social interaction between the locals here. Everyone seems to know everyone!

What do you do to get away from it all? Get in my car and drive out of Glenden, either to Townsville, Mackay or Brisbane to catch up with friends and family.

WHERE'S THE WEAR TOLERANCE DATA?

Dear Editor,

Thank you for producing a quality magazine time and time again, however, a recent article by Phil Ford titled **'Winter clipping rates of turf-type perennial ryegrasses'** (*ATM Volume 14.2, p44-46*) did raise some cause for concern. I was disappointed with the article and would like to go on record as saying that measuring clippings only is not an accurate way to advocate the use of a ryegrass for sport. Surely by this measure, an agricultural type annual ryegrass would look very appealing?

I think the biggest question that is not addressed in this article is, "Do Mediterranean ryegrasses handle wear as well as a Continental variety?" In addition to this, how do they perform over a range of important turf performance categories, i.e.: disease pressure, density, tillering, colour, aesthetics etc? In agriculture, Mediterranean varieties are used for increased upright growth and yield for grazing, but does this mean it is suited to a turf application?

The article suggested that the differences between clipper rates of Mediterranean vs. Continental types can have significant effect on turf performance and should be factored in when turf managers select cultivars. This is very compelling, but what is significant turf performance? The article states that winter performance of a variety on a football field depends on its initial wear tolerance and then its recovery. This being the case, where is the wear tolerance data? Does the winter growth rate/clipper rate of a grass matter if it can't handle wear?

Interestingly, I am aware of data where a Mediterranean variety was submitted in a trial in Europe and early results certainly raised some

serious questions. Out of 80 perennial ryegrasses the Mediterranean variety ranked in the bottom six for a number of categories, these being visual merit (sward density, leaf width, disease resistance and colour), shoot density, fineness of leaf and live ground cover after applied wear. For recovery after wear, it had the lowest score for the entire trial – 80th out of 80 varieties! These are what most agree are significant turf performance categories.

Based on some further study on turf performance, clipper rates should not be the only deciding factor when looking for a turf ryegrass for sports fields. Attributes such as wear tolerance, recovery, density, disease, tillering, colour and shredding should be considered at the same time. We have covered some of these in the Australian National Turfgrass Evaluation Program (ANTEP) trials which are industry funded, from members of the Australian Seed Federation. It would be good to see some of these Mediterranean varieties marketed here in Australia trialled and named in these independent ANTEP trials rather than having in-house trials done to show up individual traits. If they are not named or entered into ANTEP trials for these other categories one must ask the question why not?

Turf managers should be recommended to select varieties over a number of important turf performance categories, not just one. I would agree, most definitely, some more research should be done before any conclusions are drawn from a one-parameter trial.

MATT MERRICK
NATIONAL TURF MANAGER
HERITAGE SEEDS

ON THE MOVE

A quick wrap up of recent superintendent/assistant movements

Scott Fogg (pictured): From assistant superintendent Gold Creek Country Club, ACT to superintendent Queanbeyan Golf Club, NSW.

Neil Graham: From superintendent Pinjarra Golf Club, WA to superintendent Melville Glades Golf Club, WA.

Hayden Mead (pictured): From superintendent Spring Valley Golf Club, VIC to superintendent Kingston Heath Golf Club, VIC where he replaces Martin Greenwood.

Matt Milner: From superintendent Clare Golf Club, SA to superintendent Renmark Golf Club, SA replacing Ken Mumme.

Simon Muller (pictured): From assistant superintendent Royal Melbourne Golf Club, VIC to superintendent The Dunes, VIC replacing retired superintendent Mark Gahan.

Michael Nicholls: Departed as superintendent at Echunga Golf Club, SA and has left the industry after 27 years.

Simon Prosser: Departed as superintendent from Oakbank Golf Club, SA and has left the industry after 20-plus years at various clubs.

Mark Thomson: From superintendent Warrnambool Golf Club, VIC to superintendent Federal Golf Club, ACT.

Dave Warnaar: From superintendent Wangaratta Golf Club, VIC to superintendent Warrnambool Golf Club, VIC.



Fogg



Mead



Muller

GOING ABOVE AND BEYOND

Dear Editor,

I just wanted to let you know that I enjoyed your comments about John Odell in the March-April issue of Australian Turfgrass Management (**'The lucky ones'**, p5, Volume 14.2). I know exactly what you mean as I have been in the same position as you were in, sitting there riding around Royal Sydney Golf Club with John. You are correct in that it is his passion and knowledge that does come through and stays with you long after.

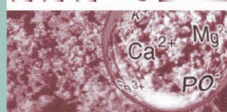
I believe that in every generation there are many good and like-minded people in this sports turf industry who are working hard every day and pushing for what is best for the industry. However, all of these people need someone to take that extra step and fight and lead the industry forward. As far as I am concerned, for this generation that man was John Odell.

FRANK DEMPSEY
HEAD TEACHER, TURF MANAGEMENT
TAFE NSW - NSI

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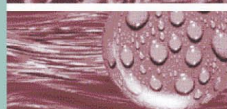
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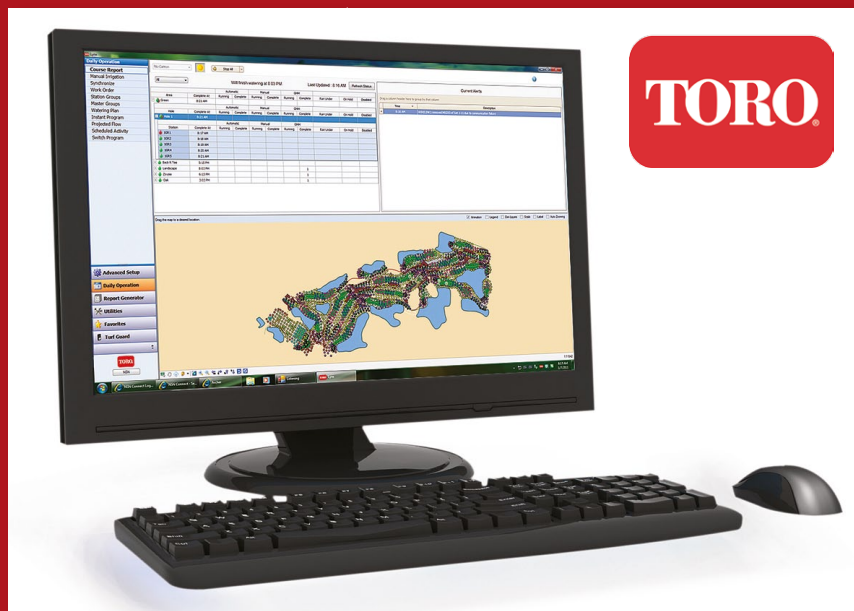


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THE LYNX EFFECT HITS AUSTRALIAN GOLF COURSES



Toro's new Lynx Central Control System has a number of exclusive features which provide greater flexibility for superintendents when it comes to managing their irrigation requirements

Toro's new Lynx Central Control System is gradually winning over Australian golf courses with Avondale Golf Club in Sydney and The Western Australian Golf Club in Perth among the first to install the new irrigation product.

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The Lynx system can be customised according to the way superintendents individually visualise and manage their course. The Lynx central control

has been built with an interactive interface and once the user has selected what information is most important to them, Lynx intuitively presents all essential data on one screen in an easy-to-use format.

Its dynamic drill down feature generates watering plans and course reports by specific area holes or stations, allowing users to easily pinpoint problems and focus only on the areas of their course that require attention. This gives superintendents the capability to designate preset or customised water distribution patterns based on the entire course, specific holes or individual sprinkler heads so water is applied exactly when and where it is needed.

The Lynx Central Control System has a number of exclusive features which provide greater flexibility for superintendents. Lynx auto-generates a detailed course report daily that lets superintendents know if their irrigation ran as planned, or if they need to step in and make changes based on course conditions presented by the system. After setup is complete, all programmes that are linked to Lynx can also be accessed from the field using either a handheld radio or a smartphone. Lynx is also connected to Toro's National Support Network (NSN) which provides around-the-clock software and system support from experienced professionals.

The Lynx Central Control System is available in three models – Lynx SE, Lynx PE and Lynx CE. While all models display essential irrigation control features, the PE and CE versions are ideal for larger and more complex hydraulic systems.

For more information about Toro's Lynx Central Control System visit www.toro.com.au or contact Toro's National Marketing Manager, Irrigation, Jennie Hartwell on 0408 828 920.



Edgeroi's Joe Nassif with his replacement Turfcut out-front mower which was donated by Jacobsen following the NSW floods in February

JOE'S JAC LOYALTY PAYS OFF

Jacobsen has helped the tiny outpost of Edgeroi on the Newell Highway in New South Wales with the donation of a new mower following the devastating floods in February 2012.

The only local shopping facility in Edgeroi is the little shop and service station owned and managed by the Nassif family which has stood on the site for 80 years serving the community and local farmers. As well as losing the majority of their stock and needing to pump out the fuel tanks which were compromised, Joe Nassif also lost his Jacobsen Turfcut out-front mower.

Nassif is well known throughout the town because he is always mowing the six acres of lawns, roadside verges and paddocks around the small settlement using his aged but well-loved Turfcut. Unfortunately for Nassif the deluge washed away the machine which was subsequently found in front of a culvert, damaged beyond repair.

Son Adam tracked down and contacted Alan Prickett, Jacobsen's regional managing director in Singapore, and asked whether an old Turfcut could be found that could be purchased through a fund-raising drive in the town.

Jacobsen, together with local NSW distributor Proturf, quickly organised for an almost new Turfcut 728 4WD from the USA and at a specially organised town barbecue in early May the new machine was donated to an unsuspecting Nassif in front of friends and family.

"Joe was completely overwhelmed at the gesture and, after thanking his son for his thoughtfulness, he promptly jumped on the machine and started mowing!", says Prickett, who along with Proturf's Chris Stig was on hand to present the Turfcut. "We were obviously delighted to be able to help and everyone connected with Jacobsen and Proturf hopes this event marks the start of a run of much-needed good luck for Joe and his family."



MELBOURNE CONFERENCE WINNERS AND GRINNERS

A number of delegates to the recent 28th Australian Turfgrass Conference Trade Exhibition walked out of the Melbourne Exhibition Centre with more than just a show bag.

Superintendents **Jason Bushell** (Rowes Bay Golf Club, Townsville) and **Mark O'Sullivan** (Roseville Golf Club, Sydney) will be packing their bags for the 2013 Golf Industry Show in San Diego after they were named as dual winners of the Simplot Partners US trip.

Commercial Golf Club course superintendent **Anthony Toogood** (pictured right) won Bayer's business card prize draw, picking up an iPod Touch uploaded with Bayer's Turf ID app. **Justin Groves** (Adelaide Oval), **Idris Evans** (The Western Australian Golf Club) and **Bill Watchman** (Sanctuary Golf Resort, WA) each collected the runners-up prize of a Tribute-branded waterproof vest.

Big hitting **Shaun Page** from Yarra Yarra Golf Club won a Sureshot GPS ss9000x for taking out the AGCSA Longest Drive Competition. Runners-up **Adrian Morris** (City of Whitehorse) and **Mark Burton** (Willows Golf Resort) each walked away with a Sureshot GPS Micro. **Mark Johnson**, superintendent of Ulverstone Golf Club on the north coast of Tasmania, won the Toro stand prize of an Apple iPad 2.

RAIN BIRD OPENS NEW MELBOURNE CALL CENTRE

Rain Bird has opened a new Asia Pacific Global Service Plan (GSP) call centre based in Melbourne. The call centre, which can be contacted Freecall 1800 225 512 (within Australia), provides comprehensive technical support and advice to Rain Bird's customers throughout the region and, in particular, will support Rain Bird central control customers including councils, sporting complexes, golf courses and other specialist areas.

The new call centre will be managed by Rain Bird Australia's national service manager Dean Lillis and is the third international call centre that the company has established, the others being in the US and Europe.

Rain Bird is also currently conducting its Academy Training series throughout Australia. Perth and Adelaide have already hosted the week-long training sessions with upcoming Academy dates scheduled for the Gold Coast (16-19 July), Townsville (23-26 July) and Melbourne (20-24 August). The Academy Training comprises a series of extensive and comprehensive technical classes centering on irrigation installation, maintenance, basic design and pumps.

For more information about the Academy Training series and to download a registration form, visit www.rainbird.com/au/training.



Anthony Toogood receives his iPod Touch from Bayer's John Hall at the recent Melbourne trade exhibition



INDUSTRY APPOINTMENTS AND ANNOUNCEMENTS

SYNGENTA ANNOUNCES KEY STAFF CHANGES



Syngenta Lawn & Garden Australasia has recently made some staff changes in order to better serve the market. The Lawn & Garden sector covers the company's Turf & Landscape and Professional Pest Management, as well as the Flowers Professional, Forestry and Consumer portfolios.



Dr. Henk Smith (pictured) has been appointed as business manager for Turf & Landscape. Henk has been with Syngenta since 2003 supporting turf professionals in all technical aspects of growing turf, most recently as technical manager Lawn & Garden based in Sydney.

Henk's previous role will now be filled by **Dr. Mark Walker**. Mark joined Syngenta Lawn & Garden in late 2011 as the Queensland manager for turf, bringing with him a wealth of disease experience after working with AQIS for more than a decade and being a qualified greenkeeper. **Sean Arnott** will continue his role as Victorian sales manager for turf and Syngenta will further augment its

turf sales team with additional appointments in NSW and QLD in the near future.

Paul Jackson has also recently joined Syngenta's Lawn & Garden team as business manager for Professional Pest Management. Paul has most recently been national marketing manager with Globe Australia/Barmac Industries and will be charged with driving the professional pest management portfolio into new areas and finding business synergies across the group.

EASTON JOINS SIMPLOT PARTNERS

Simplot Partners has expanded its team with the appointment in June of **Craig Easton** as senior territory manager NSW. Easton's arrival continues a string of new appointments made by Simplot Partners in recent times and he joins the likes of fellow newcomers Scott McKay and Stuart Miller. Easton, who makes the move after a number of years with Nuturf, is a former course superintendent and past president of the NSWGCSA. Easton can be contacted on (02) 9741 2960, 0419 768 034 or email craig.easton@simplot.com.au



RUSSELL ACCEPTS NEW ROLE WITH TORO



Cameron Russell has accepted the position of Toro Asia Business Manager, Golf (Equipment and Irrigation) and will also be responsible for the emerging non golf equipment business, within Asia.

Russell has been with Toro since 1989 during which time he has held positions in Asia and Australia, having served as Area Manager Irrigation for South East Asia and managed the Irrigation business in Australia. Most recently, Russell has held the position of Business Manager, Equipment, which encompassed all Toro equipment business products and channels in Australia. Russell started his new role on 1 July.

In other Toro movements, **Peter Schumacher** has left his position as Toro Australia National Sales Manager, Golf to take up the general manager's role at Pennant Hills Golf Club in Sydney. Schumacher, a former AGCSA Board member from 1999-2002 and AGCSA Excellence in Golf Course Management Award winner (2004), joined Toro in July 2007 after leaving his position as course superintendent at Elanora Golf Club in Sydney's northern suburbs where he spent 10 years.



The Golden Age of Golf Design

By Geoff Shackelford

Sleeping Bear Press, 1999

For those who have an appreciation of golf course architecture, the name Geoff Shackelford will be well known. Over the past two decades Shackelford has developed a reputation as one of the foremost experts and commentators on golf course design. He is a contributing editor to Golf Digest and has a dedicated following on his blog – www.geoffshackelford.com

Over the duration Shackelford has also penned a total of 11 books and perhaps the most enduring and acclaimed of these is **The Golden Age of Golf Design**. Although first released in 1999, it still remains one of the best golf course architecture books around and indulges Shackelford's passion for and intimate knowledge of those classic US golf courses designed and constructed between 1910 and 1940.

That period was renowned as one of the most fruitful and creative periods of golf course design and today many of the championship layouts of that era remain firmly entrenched within the myriad of rankings lists.

Touted by many as Shackelford's finest work, **The Golden Age of Golf Design** takes an in-depth look into the course architects of that era, presenting a veritable pantheon of the profession's elite – the likes of Alister MacKenzie, Donald Ross (of which Shackelford is an unabashed devotee), A.W. Tillinghast, C.B. MacDonald, Pine Valley maestro George Crump, Seth Raynor and Hugh Wilson. Each architect is profiled and their greatest works explored in detail.

All the major classics constructed during this 'golden age' are represented and the list is exhaustive – Oakmont, The National Golf Links,

Pine Valley, Merion, Baltusrol, Winged Foot, Riviera, Shinnecock Hills, Pinehurst, Oakland Hills, Cypress Point, August National, Pebble Beach, Prairie Dunes, The Country Club and so many more. The book brings to life many forgotten holes, courses and great architects in superb detail.

While the text is rich and fulfilling, what makes Shackelford's book such a treat is the incredible use of old and in many cases rare photos, most of which had never been seen before the book was published. They are simply stunning and you can spend hours losing yourself in them and soaking up the delightful intricacies of these classic layouts.

These magnificent photos are complemented by original quotations from the course designers themselves, shedding wonderful insight into their design philosophies and wisdom which in most instances carry just as much relevance today as they did back then.

As Shackelford says in his introduction, there comes a time when, as we get older, we yearn for the old days when things seemed more simplistic and better. For golf course design, there was no better time than this 'golden age' and Shackelford's book pays wonderful homage to an era which has left an indelible mark on the history of the game of golf.

The Golden Age of Golf Design is available for purchase through the AGCSA Bookshop. AGCSA members can purchase a copy for only \$96 (non-members \$116). Contact Lyndel Conway on (03) 9548 8600 or email info@agcsa.com.au. Visit the AGCSA website to check out the full range of turf management books available for purchase at www.agcsa.com.au/products/books.

ALSO CURRENTLY AVAILABLE FROM THE AGCSA BOOKSHOP....



The Environmental Stewardship Toolkit

By Anthony L. Williams, Wiley 2012

Dedicated to anyone who is striving to become a better environmental steward, Anthony Williams' 300-plus page soft-cover book titled **The Environmental Stewardship Toolkit** is a practical, single source guide to all facets of environmental management. With detailed coverage of site assessment, water quality and conservation, wildlife habitat management, IPM and resource conservation, this book offers guidance and customisable implementation plans from a leading golf course superintendent.

AGCSA members: \$92

Non-members: \$110



The Royal Melbourne Golf Club – History of the Courses

By John S. Green, FSGP 2011

This superb, limited edition (just 500 copies have been printed), 224-page hard cover book details the history of Royal Melbourne's famed West and East courses. Compiled by former club champion and avid historian John Green, the book concentrates on the period 1901 to 2001, from when the Royal Melbourne Golf Club first moved to its location in Sandringham in Melbourne's south east through to the time before recent alterations were made. One of the most complete works produced on this sandbelt icon, this book is an absolute must-have.

AGCSA members: \$215 (not available to non-members)



Turf Maintenance Facility Design and Management

By John Piersol and Harry Smith, Wiley 2009

Aimed at turf technicians and turf managers alike, this 180+page hardcover book examines a range of proven techniques that will enable them to design, build and manage an efficient and safe turf maintenance facility or overhaul an existing facility. Calling on nearly 50 years' combined experience, the authors look at how to develop and implement cost effective maintenance programmes to help maximise the performance of plant equipment. One of the AGCSA's best sellers over the past 12 months

AGCSA members: \$99

Non-members: \$115



PARTNER RECOGNITION PROGRAMME

Powered by the Industry

Thank you to all the partners who help the AGCSA provide members with the greatest programmes and services the industry has to offer.





The upcoming Turf Australia conference on the Gold Coast will include a visit to Redlands Research Station to view the soil erosion control trial site

Surf and turf

The Turf Producers Australia conference is a little over a month away and ATM looks ahead to what will be highly informative and entertaining programme for the nation's turf growers.



www.turfaustralia.com.au

Turf Producers Australia (TPA) will mark its 10-year anniversary when it hosts its annual conference at the Mantra Legends Resort on the Gold Coast from 22-24 August. Sponsored by Horticulture Australia, Turf Australia has put together a three-day conference for delegates which will incorporate a full day of education sessions, the TPA Annual General Meeting, annual Turf Levy payers meeting, trade expo as well as a tour to DEEDI's Redlands Research Station.

The opening day of the conference will be taken up by the field day and trade expo at Australian Lawn Concepts before that evening's welcome reception. Day two features a full schedule of education sessions and conference dinner, while day three includes the TPA AGM, levy payers meeting and field trip to Redlands where delegates will get the chance to view the new soil erosion control research and development facility.

This year's education sessions have been designed to address a range of topics and some of the highlights of the conference will include:

- **From bedroom to boardroom – Working with family (Jackie Furey):** Gain an understanding of what makes family and staff members tick, how to work well together and how to respond rather than react to challenges.
- **Strategic planning for your family and your business (David Harland):** Most turf production businesses are family-run and inevitably children will one day wish to have input or even take over business decisions from the current owners. Do all children wish to be part of the business, what about those that don't, or what if none of them do but staff want to take a greater part? David's session will provide real life examples of how to successfully transition your business.
- **Attracting and rewarding a top performing team (Stephen Wanmer):** With competition from other industries, especially mining, it is hard to attract and keep good turf production and administration staff. This session will

provide some new and innovative methods to keep employees performing at their best and providing them with a sense of pride and enthusiasm.

- **Marketing and advertising – How to kill an ad (Rohan Johnson):** Most turf producers have advertised at some stage, often without success. This interactive workshop will take delegates through several classic ad design blunders, explain how they affect the ad's performance and how to fix them. Delegates will also get the opportunity to design their own ad.
- **Cost of production modelling (Jim Vaughan):** This important session will look at how to determine your true cost of production. Many growers think they allow for most costs, or have a calculated guess, but there are many hidden considerations that impact on profitability. This turf cost calculator has been developed by Turf Queensland and DEEDI (see Turf Queensland column on opposite page).
- **Tips for tender writing and gaining grants (Katrina Tehan):** Turf customers are increasingly specifying jobs or placing out to tender in order to gain the best possible price for a given quality. In this session learn how to seek and find these tenders from areas you might not have thought of and how to write convincing tenders.

QUEENSLANDERS NAMED FUTURE LEADERS

The upcoming conference will give delegates the opportunity to congratulate Turf Australia's recently announced Future Leaders Program recipients. **Erin Quinlan** (Australian Lawn Concepts) and **Michael Newton** (Bay Turf Gladstone) have been named as dual recipients in 2012, the fourth year in which the Turf Australia initiative has been running.

The Future leaders Program aims to foster, develop and encourage knowledge and leadership in the younger generation of people who work within the turf industry and offers them opportunity to travel to international destinations and ensure that research and networking developments are maintained.

Quinlan and Newton will be heading to Florida in late July to inspect a range of turf farms and sports stadiums, as well as the University of Florida research facilities. They will also attend the Turf Producers International mid-summer conference to be held in Asheville, South Carolina from 30 July-3 August.

Quinlan has been working in the turf industry for five-and-a-half years and started her employment with Australian Lawn Concepts as a sales assistant. Through her commitment to further her career, this



Quinlan



Newton

role has transitioned through roles of sales and marketing and logistics to her recent role as general manager in 2010.

Newton has been raised in the turf production industry and realises the importance of what he and other turf producers are trying to achieve. After only a few years of completing his senior schooling, Newton has undertaken part of a joint venture with Bay Turf Gladstone.

Quinlan will be presenting at the Turf Australia conference and will join with **Paul Donovan** to give

a session on making turf invoicing and delivery easier and efficient. This interactive case study demonstration will show how a clever software programme has helped a business become more efficient without costly mistakes when it comes to harvesting for jobs, invoicing and delivery.

For more information about the Turf Australia conference, visit www.turfaustralia.com or contact Turf Australia administration officer Christine Hughes on 07 3286 6601, 0402 500 616 or email admin@turfaustralia.com.au

TA CALLS FOR FORMALISED GREEN SPACE RATIO

As part of a national marketing campaign to promote the benefits of turf and preserve community grassed spaces, Turf Australia is calling on councils Australia-wide to formalise a minimum green space ratio. With no current formal minimum green space ratio in Australia, Turf Australia is willing councils to meet a benchmark of 40 square metres of green space per resident as part of its Council Kudos programme.

The call to action comes as a result of consumer research that revealed 91 per cent of Australians claim publicly accessible grassed areas in cities and towns create a better quality of life.

"All councils work to set local environment plan guidelines for development, including the minimum size of house and units," says Turf Australia general manager Matthew Holmes. "Our Council Kudos programme calls on councils to guarantee a minimum green space ratio for the benefit of their residents. Forty square metres is approximately the size of a large living room and many councils, including those in the inner city, already provide much more than this."

Turf Australia has singled out for praise several major councils nationally that are committed to sustainability, creating community green spaces and forward-thinking urban planning. Major councils

who have agreed to meet the minimum suggested green space ratio include Adelaide City Council, Perth City Council, Warringah Council, Manly Council and Townsville City Council.

Turf Australia applauds the work of councils such as Warringah Council, which this summer announced a \$2 million programme to maintain turf open space, including 127 sports fields which will be aerated, fertilised and returfed.

The City of Greater Geelong Council has committed \$120,000 over three years to turfing and maintaining Steampacket Gardens, its most highly prized and largest public area situated on the Geelong Waterfront. Adelaide City Council lays 6400 square metres of new kikuyu turf each year in Rundle Park, to ensure the park remains useable.

Councils committed to Turf Australia's Council Kudos programme are: Bankstown City Council, Liverpool City Council, Manly Council, Warringah Council, Cairns Regional Council, Fraser Coast Regional Council, Mackay Regional Council, Rockhampton Regional Council, Sunshine Coast Regional Council, Townsville City Council, Adelaide City Council, Greater Geelong City Council, Monash City Council, Mornington Peninsula Shire Council, Fremantle City Council, Mandurah City Council and Perth City Council. 🌱



Turf Australia general manager Matthew Holmes with Manly Council mayor Jean Hay AM

TURF QUEENSLAND FOCUSES ON COST REDUCTION



Turf Queensland has for the past two years been developing an economic turfgrass production management tool and in June 2012 it was finally released to members. The Turf Cost Calculator was officially released by John O'Neil, director of the Sustainability Branch within the Queensland Department of Environment and Heritage Protection.

This cost calculator has been explained to Turf Queensland members at workshops in Cairns, Townsville, Mackay and Brisbane and to date has been trialled on four turf farms and continuously modified and updated prior to its final format. At the release in Brisbane,

all turf farms present were eager to obtain a copy of the cost calculator which is under Turf Queensland password protection due to its intellectual property rights and only available to members at this stage.

This tool has been developed by a Queensland Government economist in conjunction with the Queensland turf production industry. The economist has more than 200 cost calculators to his credit, thus ensuring its credibility.

Supporting the Turf Cost Calculator is another Turf Queensland efficiency project entitled 'Eco-Turf' that focuses on waste and increasing efficiencies on the farm. This is again supported by the State Government. During these hard economic times it is

important to identify inefficiencies in order to improve farm productivity.

Research and development continues to be an integral part of ongoing professionalism and quality with Turf Queensland undertaking a number of research programmes on Turf Queensland member sites. These projects all support our push for recognition and awareness that Turf Queensland is a professional, quality and sustainable industry group.

The Turf Queensland website has also recently completed its development and we encourage you to have a look at it - www.qtpa.com.au



JIM VAUGHAN
CEO, TURF QLD



Incoming NZGCSA president Ryan Irwin from Queenstown Golf Club

I was fortunate along with about 20 other Kiwis to attend the 28th Australian Turfgrass Conference and Trade Exhibition held in Melbourne. I would like to take this opportunity to thank you all for the great hospitality and warm welcome we received. As AGCSA Distinguished Service Award winner **John Odell** spoke about during the President's Dinner, there is a great ANZAC spirit between us and our industry is a fine example of that.

Congratulations to **Peter Frewin**, **Simone Staples** and all the AGCSA staff for such a tremendous week of education, networking and fantastic social occasions. Attending the International Summit prior to the conference was a first for the NZGCSA and was a very positive event to partake in and a bit of an eye opener for such a small association as ours. Congratulations also to **Steve Marsden** and Cape Kidnappers for winning the AGCSA Claude Crockford Environmental Award.

The North Island Fine Turf Seminar hosted by the Manawatu/Wanganui Turf Managers Association mid-June was a great success and their organising committee led by **Glenn Finlayson** needs to be commended for the effort and work that went into the seminar. A special thanks to all the sponsors and trade companies that continue to lend their support to these important events.

The NZGCSA AGM was held during this event

and has seen a changing of the guard with some new faces coming on board. After my brief stint as interim president following **Grant Bunting's** departure, I am pleased to announce that **Ryan Irwin** from Queenstown Golf Club is our new president. Ryan has been on the NZGCSA Board for a number of years and takes over at an exciting time for the NZGCSA as we start to build on some of the initiatives that have been recently introduced.

Two new faces have joined the board in **Dane Hawker** (North Shore GC) and **Steve Hodson** (Westtown GC). Both of these gentlemen have spent numerous years at regional level in various capacities for their associations and will do a fine job on the national executive.

The retirement of **Ian Carruthers** from the Board after nearly 14 years deserves special mention. His commitment, passion and loyalty to all things NZGCSA says a lot about the man and he has helped to shape and direct all of us that have had the pleasure to work alongside him. Ian was always there when you needed him, had a great calming influence and eye for detail and a wonderful grasp of the financial demands of running the association. Sadly **Steve Marsden** has also stepped down but I am sure he will not be lost to our association. Thank you to both Ian and Steve.

An awards dinner was held during the seminar with our three major winners announced. The NZGCSA Graduate of the Year Award, presented in conjunction with Power Turf NZ and Jacobsen, was presented to **Dwayne Dunn** (Recreation Services, Takapuna Golf Club). The NZGCSA Environmental Award, presented in conjunction with PGG Wrightson Turf, went to **Rick Machray** (Arrowtown Golf Club), while the NZGCSA John Deere Excellence Award went to **Rob Dunkley** from Ngaruawahia Golf Club. Congratulations to all winners and finalists along with all of our wonderful sponsors.

Finally, I would like to take this opportunity to say a special thank you to a great mate and servant of the industry, immediate past president of the AGCSA **Allan Devlin**. Allan, to be invited to sit on your table at the President's Dinner in Melbourne was a privilege. The work and commitment that you have given in your time at the AGCSA, culminating as president, has been second to none.

You have done a wonderful job, been a great ambassador and you should be very proud; our industry needs more people like you for us to continue to move forward. Thank you for the support you and the AGCSA have given the NZGCSA and to have you involved in our conference last year was greatly appreciated by our members and our board. To top it off, you're a bloody good bloke!

PETER BOYD
IMMEDIATE PAST PRESIDENT, NZGCSA

STA NSW



I was very impressed with the recent Australian Turfgrass Conference in Melbourne, in particular the presentations in the Sportsfield stream. It was a great opportunity to catch up with many people in our industry and I would like to congratulate the AGCSA for all the work that goes into producing such a big event.

It was also great to see our young sports turf graduate representatives enjoying themselves at the conference. The week was a big opportunity for them as they mixed with industry leaders. Congratulations to **Rory Bairnsfather-Scott** from WA on taking out the national title. We are very grateful to Toro Australia for their support of this award.

On the home front, we are preparing for our annual Regional Seminar at Kurri Kurri TAFE in the Hunter Valley on 14 August. This is always a great day with plenty of informative presentations and machinery demonstrations.

We have also had a change of date for our Cricket Wicket Seminar which will now be held on 16-17 October. This event is a great experience for anyone working on wickets. It comprises two days of presentations and demonstrations on live wickets covering every aspect of wicket preparation and maintenance. We are fortunate to again have **Les Burdett** who not only is very knowledgeable but has a great way of entertaining and engaging the audience while demonstrating on the wickets.

This year we are also planning for presentations from other leading wicket curators from around the country so it will be a big event. All the details will be on our website and I look forward to seeing many of you at this and our other upcoming events.

CHRIS CHAPMAN
PRESIDENT, STA NSW

STA ACT REGION



It looks as though we are in for another cold winter here in the ACT region. Already we have had some heavy frosts with well below zero temperatures tipped to arrive as you read this report. Couch surfaces are now well into dormancy and with grass growth slowing right down it allows greenkeepers to catch up on some much needed annual leave.

The STA ACT committee is busy finalising arrangements for the upcoming annual turf seminar to be held on 25 July at the Hellenic Club in Woden. This year's seminar will feature speakers presenting on a wide range of topics including:

- Superannuation;
- Skin cancer;
- Trial work bringing couch out of dormancy;
- Converting bowling green surfaces;
- Building of ACT's first synthetic bowling green;
- Watering sportsgrounds using stormwater; and
- Using artificial light to enhance turf growth.

There is certainly something for everyone and trade stalls will also be set up around the auditorium with sponsors keen to show off their latest products. It is a great time to catch up with fellow greenkeepers and share our experiences.

In the last ATM you were introduced to our two representatives in the final for the Toro-sponsored Graduate of the Year Awards at the Australian Turfgrass Conference – **Mark Spicer** from The

Moorings Resort, South Coast (AGCSA Graduate of the Year Award and **Damien Miller** from Young Bowling Club (National Sports Turf Graduate Award). The STA ACT congratulates both Mark and Damien on this recognition and it is re-assuring to know there are greenkeepers of this calibre coming through our industry.

The STA ACT Annual Golf Day was recently conducted at Gold Creek Country Club under perfect blue sunny skies. Superintendent **Scott Harris** and his staff should be congratulated for the condition the course was presented in.

The event was a three-man Ambrose with **Peter George, Brendan Warby** and **Andrew Steele** taking out the nett prize and **Rob Cooper, Scott Fogg** and **Dave Ablett** winning the scratch event. A great day was had by all and I encourage everyone to put next year's event high on their list of priorities. Thanks to everyone who helped on the day, particularly **Billy Franklin** (Nuturf) for his culinary skills on the BBQ.

In other news our lawn bowling greenkeepers headed off to Newcastle for their annual NSW Bowling Greenkeepers Association Conference in mid-June. Our AGM will be held in coming months and details will be advised shortly.

DANNY HULL
COMMITTEE, STA ACT REGION

GCSAQ

No doubt the 2012 Australian Turfgrass Conference will be well covered by editor Brett Robinson elsewhere in this issue suffice to say it was heartening to see such a large contingent from Queensland in attendance and especially good to see Headland Golf Club superintendent and GCSAQ committeeman Ben Tilley take out the John Deere sponsored AGCSA Excellence in Golf Course Management Award.

Queensland will be host for the next two conferences with Twin Waters on the Sunshine Coast hosting 2013 and the Gold Coast back in the limelight in 2014. Those of you who haven't seen Twin Waters will be in for a treat as host superintendent **Gary Topp** and his crew do a sensational job on the course and provide some of the best turf in south east Queensland.

On a personal note I would like to thank everyone who has wished me well on my appointment as AGCSA president. It is a great honour to accept the role and one that I don't take lightly. If I can be of any assistance to AGCSA members in any way please do not hesitate to contact me.

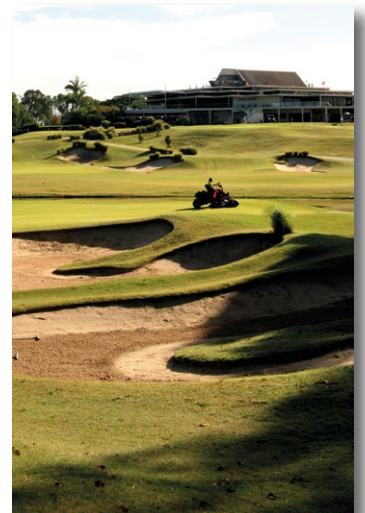
The annual GCSAQ bus trip is just around the corner and we will be travelling to the beautiful city

of Toowoomba and playing golf at **John Halter's** City Golf Club on the Friday and at **Tom Meara's** Clifton Golf Club on the way home on Sunday. Clifton has a couple of other claims to fame in that it is home to GCSAQ member **Ross Watson's** first design, while QLD drumMUSTER guru **Colin Hoey** is Clifton Golf Club captain.

The GCSAQ AGM will then be upon us and this year we visit **Charlie Giffard's** Indooroopilly Golf Club on Monday 27 August. Golf will be a 7.30am shotgun and lunch will follow, proudly sponsored by Toro. This year we will also have a course inspection from 10.30am for those not wanting to play but eager to see the great work Charlie and his crew have done in the aftermath of the floods. As always if you would like to nominate for the committee just keep an eye out for the relevant documentation or contact a current committee member for information.

The 2012 GCSAQ Turf Research Golf Day on Tuesday 30 October will return to Sanctuary Cove G&CC and host **Robin Doodson** has us playing the Pines Course this year. Twin View Turf will again be our major sponsor.

PETER LONERGAN
PRESIDENT, GCSAQ



Indooroopilly Golf Club will host the GCSAQ AGM in late August



Richard Forsyth (centre) was presented with VGCSA life membership at the 2012 AGM held at Royal Melbourne. Also pictured is VGCSA president Steve Hewitt (left) and Richard's son Patrick



VGCSA golf winners Peter Jans (Toro Cup) and Brett Hawkey (Powell Trophy)

The VGCSA had a great turn out of members for its 85th Annual General Meeting held at Royal Melbourne Golf Club at the start of May. Host superintendent **Richard Forsyth** had the East Course in fantastic condition and it was great to see the results of the new resurfacing work that has been carried out in recent times.

The VGCSA committee members were all re-elected for another term which will provide consistency and a clear focus for the association in the year ahead. The full VGCSA committee is:

- **President:** Steve Hewitt (Thirteenth Beach)
- **Vice-president:** Tim Bilston (Heidelberg GC)
- **Secretary:** Barry Proctor (Cranbourne GC)
- **Treasurer:** Mark Jennings (Box Hill GC)

- **Committee:** Michael Freeman (Huntingdale GC), Mat Poultney (Greenacres GC), Dave Mason (Riversdale GC) and Jeremy Cutajar (Ringwood GC).

To complement the AGM, the day was made even more memorable by being able to present Richard Forsyth life membership of the VGCSA. Richard served on the VGCSA committee from 1993-2000, including two years as vice-president and then a further two as president (1998-2000).

Speaking to the members Richard commented: "I'm very proud and honoured to receive life membership and will treasure it always. The VGCSA has been something that has been dear to me over many years and I still remember **Ben Nowell** bringing me along to my first meeting when I was an assistant. Since then I have really enjoyed every moment of being involved with the association, whether it has been through my involvement on the committee, attending meetings and gaining knowledge from other superintendents, or the many wonderful friendships I have made over the years."

As well as honouring Richard, **Nick Marino** was presented with the VGCSA Apprentice of the Year Award. Nick is currently employed at Rosanna Golf Club under **Dean Bailey** and completed his apprenticeship at Ivanhoe Golf Club. The other candidate this year was **Scott Middleton** from The Barwon Heads Golf Club.

The major golf winners on the day were **Brett Hawkey** (Sanctuary Lakes Golf Club) who won the Powell Trophy and Sandhurst Club superintendent **Peter Jans** who collected the Toro Cup stableford honours. **Mark Dougherty** (Globe Australia) won the President's Shield in the trade competition. The VGCSA gratefully acknowledges sponsors Toro.

The combined VGCSA Country Meeting and Assistants meeting was held at Rich River Golf Club in late May. There was a fantastic attendance with 56 players booked in for golf and 92 attending the dinner and educational sessions.

As guest speakers, **Richard Forsyth**, **Leigh Yanner** (The National) and **Terry Woodcock** (Sportsturf Consultants) excelled in their role, providing great content which resulted in plenty of discussion. Thank you to all guest speakers and to sponsors Anco, David Golf, K&B Adams, Turf Culture and Toro.

Rich River superintendent **Andrew Johnson** had his two courses in magnificent condition and we greatly appreciate the efforts of Andrew, the staff and Rich River Golf Club for providing a fantastic venue for our meeting. Our next education meeting will be held at Kew Golf Club on Monday 6 August with Globe sponsoring the day.

STEVEN HEWITT
PRESIDENT, VGCSA

STA VIC



Winter is upon us, but exciting times are happening in Victoria. As of 20 May 2012 TGAA Vic (Inc.) has changed its name to STA VIC (Sports Turf Association of Victoria). This facilitates the opportunity to create a national peak body to improve and formalise national industry standards.

Melbourne has just hosted the 28th Australian Turfgrass Conference and Trade Exhibition and from all reports it was another successful event for the AGCSA and the turf industry represented by STA VIC, NSW, ACT and QLD and TGAA SA and WA. Delegates from the turf stream commented on the excellent standard of all the speakers, in particular **Dr. Frank Rossi**.

During the conference, the Toro National Sports Turf Graduate of the Year was awarded to **Rory Bairnsfather-**

Scott from Western Australia. Rory's acceptance speech brought the house down! STA and TGAA would like to thank Toro for its sponsorship of the award and look forward to their continued support.

The STA VIC Cricket Wicket Seminar will be held in the Olympic Room at the MCG on 25 July. Registrations open at 7.30am. Guest speakers include cricket/business personality and all round nice guy **Max Walker** and WACA guru **Cameron Sutherland**. The Cricket Wicket Seminar is proudly supported by Cricket Victoria.

MIKE WALKER
VICE-PRESIDENT, STA VIC



As I write my first chairman's report winter has well and truly hit much of New Zealand after a mild and predominantly dry autumn across many parts of the country.

Inclement weather conditions during the cooler months often results in field and park closures. For the young (and not so young I might add), cancelled sport is a huge let-down. The closure of sports grounds has a profound effect on the sustainability of our sports clubs and communities and the health and well being of our participants.

Many ground and facility providers across New Zealand are doing some fantastic work with detailed planning towards injecting large capital investment to secure our future ground provision, however many have not yet got the balance right.

Too often fields are closed for training and actual play is cancelled at the grass roots of participation. Cancellation of sport on our parks can effect ongoing participation, put pressure on a club's sustainability and lead to a disengagement of our youngsters who then turn their attention to other activities (i.e.: sitting in front of a computer).

Councils, schools and other ground providers need to strategically plan grounds provision (i.e.: not be reactive when a problem comes up) and invest in the many options available by introducing improved technology and resources to ultimately reduce sports cancellations.

Moving forward a key focus is on the grass roots of sport and the STANZ must channel its energy alongside key stakeholders to ensure that it can support and contribute to deliver our new vision statement - Healthy Turf, Active Communities.

As was written in our last report, I have taken over as chairman following the departure of **Dr Richards Gibbs** who has returned to the UK to work for the STRI. I would like to formally recognise and thank Richard for his enormous contribution to the New Zealand turf industry through his distinguished, globally-recognised research, education and training, consultancy and governance.

Also standing down from the STANZ executive is **Peter Gray**. Peter has represented STANZ on the board of the Sports Turf Industry Training Organisation for many years. Peter's contribution will allow us to move forward in the coming years assured that the training pathway for the next generation and ongoing education of turf managers is well catered for.

Finally, a number of NZ first class and international curators descended on Melbourne for the recent Australian Turfgrass Conference and we would like to thank all the Melbourne curators who showed us through their magnificent facilities.

IAN MCKENDRY
CHAIRMAN, STANZ

The first STA QLD event for 2012 was an education and trade show day held at Villa Nova Park in Tingalpa. Grounds manager **Adam Reilly** hosted the day and it was evident that despite the heavy rains the team has been putting in the big ones to get the place looking great. It really is a credit to the hard work of Adam and his team at the park.

On the education side, the day was a mixture of industry specialists sharing information from a wide range of areas, as well as a healthy number of company representatives sharing product and machinery knowledge. A big thank you to all the sponsors for making the STA 2011-12 year a big success and we look forward to working with them all again over the coming 12 months.

Dan and Matt from the Sports Turf Institute kicked off the day with a look into the field assessment work that they have been doing for Brisbane City Council. With over 600 fields assessed they certainly have a wealth of data to share and the knowledge gained from this work will prove beneficial for all turf managers.

Paul Beaton from Pinnacle Safety shared the latest amendments to the Work Health and Safety laws, regulations and codes of practice. Despite the heavy

nature of the topic, Paul made it relevant and it was by far the most well received and widely discussed topic of the day.

All the interest in STA QLD and the added workload means that we have to start hiring people, well one person at least. **Susan Smith** has started on a part-time basis helping the management committee with member and sponsor communication. We look forward to working with Sue, but really we just want to be told what to do....

The STA QLD Annual General Meeting was held at the Glenn Hotel on Tuesday 17 April. About 30 people were in attendance to see **Mal Caddies** re-elected as president for another 12 months. **Brendan Ott** (Toowoomba Grammar School), **Jarrod Bird** (Queensland Cricket), **Terry McPartland** (Perfect Earth) and **Sheldon Simmonds** (TIS) were voted onto the management committee and I am sure they will serve the association well.

The first ever dedicated sponsor's day is coming up on 18 July and will give all our sponsors the opportunity to show their wares. All relevant details are on our new website www.staqlld.com.au.

ANDREW KOLBEE
SECRETARY, STA QLD

In May a small group of 12 SAGCSA members ventured down to the state's south east. Our first destination was Penola Golf Club. Penola is a small country course in the beautiful Coonawarra and is surrounded by pine forests and vineyards. Superintendent **Peter Roughana** is the only paid greenkeeper and is backed up by a number of willing volunteers.

The greens were in great condition and the boys were very keen to ask plenty of questions. The club also had some very forward thinking ideas about generating money which included using extra acreage for pine logging. Penola, like many other country clubs has struggled in recent times for members and income, but with Peter, who is very keen to learn and develop, and its enthusiastic volunteers, the club has a strong future.

We then headed to Mount Gambier Golf Club to catch up with superintendent **Craig Gillin**. A break in the weather

allowed us out on the course where Craig explained recent changes, in particular the tree removal programme which has opened up a number of holes. He also described the difficulties of the irrigation system and how the club has dealt with a transition to Santa Ana fairways.

Mount Gambier is an undulating layout with some well designed bunkering and quick greens making for a very strategic course. Again Craig has only a small number of staff and has done a magnificent job since taking up the position a couple of years ago.

The SAGCSA AGM will be held in July at Tea Tree Gully Golf Club. October sees a meeting at The Grange Golf Club which will provide a great opportunity to see the East Course redevelopment works. See you there.

SAM SHERRIFF
PRESIDENT, SAGCSA



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- Mark Jennings Superintendent Box Hill Golf Club

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