



## Greenkeeper Education and Development Fund

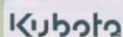
BIGGA GOLDEN KEY and SILVER KEY MEMBERSHIP

Unlock the doors to progress through BIGGA's Education and Development Fund - the key to a great future for greenkeepers, golf clubs and the game of golf.

Golden and Silver Key Membership is available to both companies and individuals.

For details, please contact Ken Richardson on 01347 833800 or via ken@bigga.co.uk

### Golden Key Supporters



### Golden Key Company Members

Company	Tel: Head Office
John Deere Ltd	01949 860491
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PGA European Tour	01344 842881
Rigby Taylor Ltd	01204 677777
Scotts UK Professional	01473 830492
Ransomes Jacobsen Ltd	01473 270000
The Toro Company/Lely UK	01480 226800

### Golden Key Individual Members

J H Fry; J H Greasley; WJ Rogers; David S Robinson; Stuart Townsend; Andy Campbell MG, CGCS; Chris Yeaman; Iain A MacLeod; Bruce Cruickshank; John Crawford; Stuart Cruickshank; Frank Newberry; Terence Welch.

### Silver Key Supporters



### Silver Key Company Members

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### Silver Key Individual Members

Clive A Archer; Douglas G Duguid; Robert Maibusch MG; Elliott R Small; Steven Tierney; Richard Lawrence; Clive Osgood; Roger Barker; David Robinson; Richard Stillwell; Stephen Dixon; Ian Semple; Paul Jenkins; Robert Hogarth; R Steele; Lee Relf; Raymond Warrender; Nicholas Gray; Trevor Smith; Iain Barr; Richard McGlynn; Alex McCombie; Paul Murphy; Tom Smith.

# Education Update

Ken Richardson details the major changes made to the Continue to Learn Programme for Harrogate Week 2006.

## Harrogate Week 2006 - Continue to Learn

There will be some significant changes to the Big Week in Harrogate starting on January 23. The first change is the name given to the full week of activities, i.e. Harrogate Week 2006. Our aim is to bring you the best week ever and a major part of this is the extended Continue to Learn Programme.

Continue to Learn starts on Sunday January 23 with five two day Workshops that are continued on Monday January 24. Monday January 24 also sees the start of five one day Workshops.

Each Workshop has been designed to appeal to particular groups of golf club employees, for example golf club managers (General Managers, Secretaries, Chairmen of Green, Club Captains etc), golf course managers (Course Managers, Head Greenkeepers), supervisors/middle managers (First Assistants, Deputy Head Greenkeepers, Deputy Course Managers) and to greenkeepers (Assistant Greenkeepers, Trainees, Apprentices etc).

This does not mean that greenkeepers cannot attend Workshops designed for managers or that managers may not attend workshops aimed at greenkeepers. However, delegates will gain the greatest value from attending an appropriate Workshop.

### Subjects for the five two day Workshops include:

Golf Course Design	Presented by Howard Swan and Simon Gidman
Health and Safety Basics	Presented by Martin Glenn from KNW Training
Resource Management	Presented by Frank Newberry
Financial Planning	Presented by Brin Bendon
Assessor Training (A1)	Presented by Plan-it Training

### Subjects for the five one day Workshops are:

Customer Care	Presented by Mike John KNW Training
Managing Water	Presented by Dennis and Adrian Mortram
Staff Development	Presented by David Bancroft Turner
L12 Trainer Training	Presented by Plan-it Training
Update training to A1	Presented by Plan-it Training

Another change for Harrogate Week 2006 is the introduction of half day Continue to Learn Workshops that will run during BTME & ClubHouse on January 24, 25 and 26.

### Subjects for the half day Workshops are:

Employment Law	Presented by General Legal Protection
Media Skills	Presented by Roger Greenwood
Environmental Management	Presented by Jonathan Smith and others
Basics of MS Word	Presented by Keystrokes Training
Basics of Ms Excel	Presented by Keystrokes Training
Basics of Powerpoint	Presented by Keystrokes Training

Yet another change is that each Seminar session has been extended and will last 45 minutes with time for 15 minutes of questions at the end.

### Subjects for the seminars include:

Working with Others	Presented by Brin Bendon
Disease Management	Presented by Ruth Mann

Other Seminars are being organised and further details will appear in the August Edition of Greenkeeper International.

More changes to the Harrogate Week occur on Tuesday January 24, following the official opening of BTME & ClubHouse. The Presentation of prizes for the BIGGA Golf Environment Competition and the Presentation of Master Greenkeeper jackets will be held in the Seminar Theatre.

The presentations will be closely followed by the 2006 Keynote Speaker, John Blashford-Snell.

There is, truly, something for everyone and we have been able to extend Continue to Learn and give you this wide range of educational opportunities thanks to the opening of the Queen's Suite at Harrogate International Centre that allows users a variety of room designs.

## BIGGA Golf Environment Competition

The deadline for entries to the 2005 BIGGA Golf Environment Competition, sponsored by Scotts UK Professional, Syngenta Professional Products, WRAP and Waste2Water has now passed. All entries have now been delivered to STRI so

that Bob Taylor and Lee Penrose can start their judging.

If you wanted to enter and you have not sent in an entry, there is still time but entries must arrive at BIGGA HOUSE by July 7.

## TORO Student of the Year Award 2006

Judging for this year's TORO Student of the Year Award began on Monday July 4. The eight national finalists will assemble at Aldwark Manor Hotel on Sunday September 25, prior to the judging on Monday September 26 at BIGGA HOUSE.

## Regional Training Courses

We have received a large number of bids for regional training courses that Sections and Regions wish to be run this autumn. If you want a particular course in your area then you should speak to your Section Secretary or Regional Administrator.

## Health & Safety Legislation - Has it gone too far?

In my new role working in this area I come across a lot of negative comment and much of it is because there is a belief that civil servants sit down and deliberately try to make our life as difficult as possible.

It is true that the people involved may not be experts on golf clubs and related industries but they do consult to get as much information as possible - it would not be in their best interests to get it seriously wrong!

One area of misunderstanding of any legislation is to take it to the extreme, or too literally, to make sure you're covered no matter what happens.

I will use the hard hat scenario as an example.



### Hard Hats

Legislation dictates that hard hats must be worn in situations where a risk of injury may occur - usually in our case, golf balls flying around when we are working on the golf course.

It frequently happens that 'an official' taking the safe option, with the best intentions I hasten to add, instructs the course staff to wear hard hats at all times when on the golf course.

This alienates the staff because of...

1. The discomfort involved, particularly in the summer months.
2. Little understanding of the work which is carried out.

The result is that the staff does not carry out the instructions and the course becomes a more risky place to work - this situation of course is the exact opposite of what was intended - to make workplaces safer.

The correct procedure is...

1. Risk assess the golf course - this must be carried out by the expert (the department head, i.e. Course Manager/Head Greenkeeper) with assistance if required.

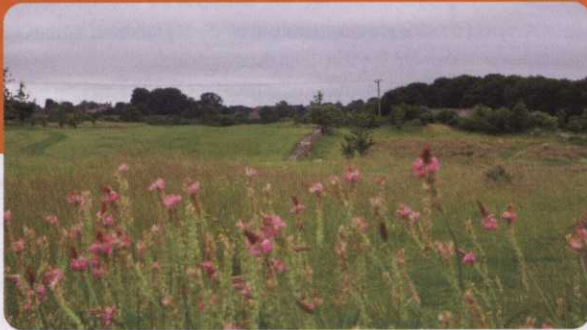
2. Identify those areas where there is risk of danger from golf balls - you will find in normal circumstances that one or maybe two areas relate to this.
3. Inform staff of the dangers involved and instruct that hard hats must be worn in these areas when there is a risk.

From experience and analysis of the problem you will find that highlighting this and discussing further with staff the changing of the work routine, i.e. doing the work when there is no golf being played may eliminate the danger, and therefore there would be no need to wear hard hats at all.

However, you can only arrive at this practical solution if there is open discussion of the problems and possible dangers involved.

To find out more please look at [www.safegolfplan.com](http://www.safegolfplan.com) or call Duncan McGilray and the Haztek team on: 0208 905 7552 email: [info@haztekinternational.com](mailto:info@haztekinternational.com).

## Tip of the Month



The rough, out of immediate play or open grassland areas on your golf course still need to be maintained. It is necessary to cut this rough at least two times a year.

Make the first cut in March. This allows wildflowers to bloom and set seed through early summer before being overtaken by faster growing weed grasses. A good height of cut should be between 50-75mm (2-3 inc).

The second cut should be made in August after flowers have set seeds, thus allowing the spread of wild flower seeds for next summer and suppressing the vigour of weed species.

This management program has enormous ecological benefits creating sward

### WHEN THE GOING GETS ROUGH

diversity, increasing natural flora and fauna to the area, therefore allowing a wild life corridor for small animals to move from one food source to another. An added benefit of this is that the golf course becomes more attractive, creating a backdrop to many holes without restricting play.

Over seeding the area with a wild flower seed mix might be necessary to create flower rich grassland. The best time to over seed is in autumn, as the soil is moist and still warm.

There are many flower seed sales companies on the market, negotiate with a number of them to find the right seed mix at the right price for your golf course.

*Ivan Killip*

Deputy Head Greenkeeper,  
Gatton Manor Golf Club



Do you have a tip that has helped you in your day-to-day work on the golf course? If so, why not share it with other greenkeepers. Please send any tips you feel would benefit your fellow readers to us either by post at BIGGA HOUSE or by email to [gareth@bigga.co.uk](mailto:gareth@bigga.co.uk).

## SUMMER PUZZLE

Join in the latest craze that's sweeping the nation and have a go at Sudoku. No maths involved I promise!

**HOW TO PLAY:** Fill in the grid so that every row, every column and every 3x3 box contains the numbers 1 to 9. You solve the puzzle with reasoning and logic.

			3			7		2
			2					9
7						3		
6	1	9					5	
		5		1				
3		4			9	1		8
		1		8	3			
			1			6	2	4
	5	6		7				

Answer supplied next month.

## RED LETTER DAY WINNERS

Members who return their renewal forms before their membership expires are placed into a prize draw to win a Red Letter Day Voucher.

Our congratulations go to Matthew Williams of Druids Heath Golf Club, who won the prize draw on the 1st March and Stuart Ashley of Hunstanton Golf Club, who won the prize draw on the 1st June.

## USEFUL CONTACT NUMBERS:

Please be ready to quote your membership number when calling.

### GREENKEEPER MEMBERS ONLY

Free Legal Helpline ..... 0800 068 1893

Personal Accident Insurance ..... 01277 251000  
(Ask for Ira Mullish or Michaela Edwards)

### ALL MEMBERS

Privilege Platinum Card ..... 0800 587 8800

LEX Personal Car Leasing ..... 0800 419 930  
Quote: 'Staffselect - BIGGA'

Heath Lambert Affinity Partnerships  
Insurance Quotation Service ..... 01603 828255

Arco Hotline ..... 01482 611773  
20% of Selected Products

Europ Assistance ..... 01603 828255

BIGGA Merchandise & Library ..... 01347 833800

Education and Training Advice ..... 01347 833800

Membership Queries ..... 01347 833800

BIGGA Website ..... [www.bigga.org.uk](http://www.bigga.org.uk)

## Airport Parking



The telephone number to call to receive 35% discount on airport parking has changed to **0870 733 0804**.  
If asked please quote 'PREMIER'.

### BIGGA welcomes...

#### SCOTTISH REGION

Neil Cochrane, Ayrshire  
David Cole, West  
Peter Haggarty, West  
Gavin Neill, Central  
John Tait, Ayrshire

#### NORTHERN REGION

Jon Edmond, Northern  
Andrew Fowler, Northern  
Ellyn Griffiths, North Wales  
David Jones, North Wales

Carl Pigott, Sheffield  
Russell Smith, Sheffield  
Darren Stretch, North Wales  
Stephen Thomson, North West  
Thomas Tomlinson, North East  
Andrew Townsend, North West

#### MIDLAND REGION

Michael Beane, BB&O  
Sam Birley, Mid Anglia  
Damian Bond, BB&O  
Nicola, Carrisi BB&O

Thomas Dann, East Midland  
Luke Edkins, Mid Anglia  
John Frankham, BB&O  
Anthony Hardy, Midland  
Billy Hayes, East Midland  
Colin Hedges, BB&O  
Neil Markham, BB&O  
Michael Rapley, BB&O  
Daniel Tansey, BB&O  
Alan Turner, Midland  
Thomas Williamson, Mid Anglia  
Damion Woods, BB&O  
Andrew Wren, Mid Anglia

#### SOUTH EAST REGION

Terry Brown, Surrey  
Stephen Gaylard, London  
Neil Howard, Essex  
Philip Slater, London  
Matthew Tribe, Sussex

#### SOUTH WEST/WALES REGION

Russell Abernethy, Devon & Cornwall  
Simon Amery, Devon & Cornwall  
Lee Carter, South West

Stewart Kent, Devon & Cornwall  
Lee Milton, Devon & Cornwall  
David Moulding, Devon & Cornwall  
Lee Payne, South Coast  
Jamie Pender, South Coast  
Richard Rhodes, Devon & Cornwall  
Christopher Rowland, Devon & Cornwall  
Shaun Warren, Devon & Cornwall  
Christopher Wills, Devon & Cornwall

#### NORTHERN IRELAND

James Harkness

#### INTERNATIONAL MEMBERS

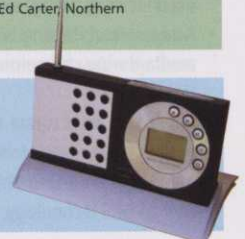
Chris Haspell, Denmark

#### ASSOCIATE MEMBERS

Adrian Parker, North West  
David Parker, BB&O  
Ed Carter, Northern

## JULY'S MEMBERSHIP DRAW WINNER

Just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a draw to win a DIGITAL FM SCAN RADIO/ALARM, with a detachable speaker and headphones. Our congratulations go to Steven Robinson of Blackmoor Golf Club.



# Planning for Performance

## The Challenge of St. Andrews Links

Irrigation was first supplied to the Links at St. Andrews by a gravity-fed system in the late 19th Century when a source of water, high in the town, was linked to a mains system and a stop valve located beside the Swilken Burn. In the following decades there were various additions and improvements made to this original system.

In 1996, with the Millennium Open getting ever nearer, the St. Andrews Links Trust decided to embark upon a major redevelopment of their automatic irrigation system covering the entire Links, encompassing all six courses, 99 holes of golf, the driving range, turf nurseries and the Bruce Embankment, to bring the system into the 21st Century. Their approach was to begin with a detailed feasibility study of the existing systems which covered the greens, tees, fairways and approaches on the Old, New, Eden, Strathtyrum, Balgove and Jubilee Courses. At this time there was no automatic irrigation on the Golf Practice Centre, Bruce Embankment and new turf nursery.

The feasibility study involved a detailed assessment of the following areas in comparison with up to date technologies and included the status of the existing water resources and storage facilities. The study also embraced the suitability of the existing pumping system, distribution pipework and control valves; the control system and field electrics and most importantly the application of water to meet the modern demands of both agronomy and conservation to the greens, approaches, fairways and tees where appropriate.

As well as looking at the existing system, an assessment was made of the need for irrigation on all areas of the courses making up the Links. In this respect discussions took place on the requirement for irrigation to replace soil moisture lost through evapo-transpiration and the requirement to facilitate undertaking maintenance practices with ease. These discussions were conducted in conjunction with the STRI as agronomists and consultants to the R&A Championship Committee. At this stage important decisions were made which included:

- Each of the six courses would have its own dedicated irrigation system.
- There would be a separate feed main to each course from one common pump station and separate computerised control systems.
- The Old Course would receive irrigation coverage to all areas, including spectator routes to help aid recovery to these areas.
- All sprinklers on the Old Course were to have artificial grass covers to minimise their visual impact when playing the course and during televised championship events.
- The Golf Practice Centre and the fairways on the Strathtyrum and Eden Courses would receive full irrigation to ensure a speedy recovery and maintenance following Major Championships as parts of these courses are used for car parking, while the Golf Practice Centre is used as the tented village.
- A network of ducting would be installed around the Old Course for use by the media during championship events, particularly with the rise in fibre optic technology.

To ensure an accurate and area-specific irrigation design could be undertaken, there was a need to obtain scaled plans of the courses detailing all the areas to be irrigated including spot heights and contours where necessary. With the recent advent of GPS technology, and back up from conventional techniques, the entire

Sprinklers in operation on the Old Course



*Continue  
to learn*

280 hectares of the Links was surveyed and coupled with OS data, a digital drawing produced in AutoCAD software. This formed the basis for the design of the system.

The irrigation time cycle for each course during dry weather conditions was decided at 480 minutes (8hrs). During Major Championships, however, there was a requirement to reduce the irrigation cycle on the Old Course, for example, to 360 minutes (6hrs) to take into account hours of play and the working regimes of the maintenance staff.

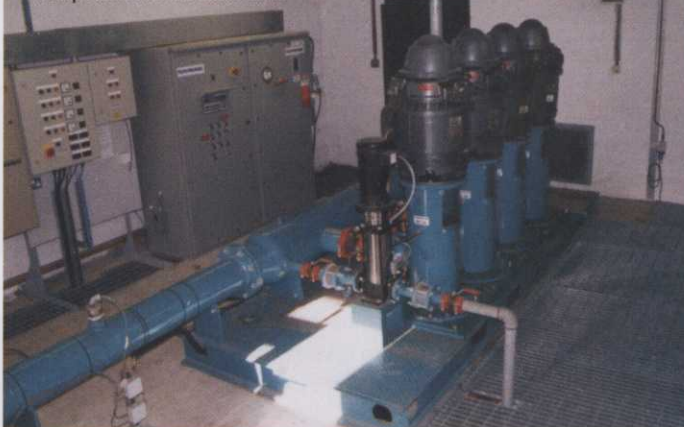
To establish initial design data, water requirements and ultimately accurate budget

costs it was imperative that a base sprinkler layout and sprinkler schedules were produced. Final sprinkler selection with regard to an international manufacturer would be decided at a later date, as would the precise location of sprinklers on each course be decided with each individual Head Greenkeeper.

The base sprinkler layout was determined by assessing the individual areas to be irrigated on each course and selecting sprinkler spacings to suit. The overall design used over 4,000 sprinklers, compared with 300 on an average course in the UK. Where possible no sprinklers were positioned within either the green putting surface or tees playing surface, and sprinklers were all located with arc specifications to irrigate only those areas requiring irrigation and avoid excessive overthrow onto areas not requiring additional precipitation, such as gorse or heather, thus conserving water and sensitive ecology.

Having decided upon sprinkler spacing and arc configuration, sprinkler flows and pressures were determined bearing in mind the wind, so that all square spacings were at 45 per cent of their diameter and triangular spacings at 50 per cent where possible. The sprinkler design was undertaken in accordance with BTLIA recommendations. Once this criteria had been established, it became apparent that the choice of sprinkler manufacturer would be a very important one, particularly in relation to the size of the putting surfaces on the Old Course. The

Pump station for the entire Links



## Adrian Mortram reviews the renewal of the irrigation system throughout St. Andrews Links.



5/13th green, for example, measuring 55m wide and having a surface area of some 3,300sq m.

Following technical presentations and interviews with the major manufacturers, the Links Management appointed their preferred supplier who supplied detailed information on their product range from which suitable sprinklers, valves and control equipment were selected to match the design requirements. Knowing the flow of the sprinklers to be used enabled accurate water quantities to be calculated and work in relation to water resourcing could begin in earnest.

The existing water source was from two wells along the boundary of the Balgove Course at a point farthest away from the sea to mitigate saline intrusion. The capacity of those sources was investigated by hydro-geological engineers and found to be insufficient for the system's needs. An extensive feasibility study into the possibilities of obtaining further ground water established that a series of four wells equidistant into the same strata would provide the requirements of the system. Engaging the services of hydro-geological engineers to resource sufficient water was expensive. However, for the Links management, this ensured that the chances of borehole drilling and not finding water at the required quantities was minimal.

The decision had already been made to centralise the storage tank and pump house location at the Jubilee Maintenance facilities primarily due to the fact that the existing concrete storage tank would be reused and that electricity supplies to operate the new pumping station were of suitable capacity. The maximum designed water use for a worst case scenario was calculated to be 3,780m<sup>3</sup> per day to successfully irrigate all areas of the six courses and driving range.

The capacity of the existing storage tank was some 1,600m<sup>3</sup> (352,500 gallons), which was insufficient to enable watering within the specified time window. Therefore there was a requirement to increase the storage capacity by some 1,805m<sup>3</sup> (397,500 gallons) to give a total storage capacity of 3,405m<sup>3</sup> (750,000 gallons).

At this stage it was decided to have two separate storage tanks with a series of transfer pumps to move water from the existing tank into the new tank. The advantage of the two storage tanks enables the Links to monitor the pH in the first tank and treat accordingly before transfer (and mixing) into the second tank.

The courses were split into individual flow zones from which the mains pipework sizing was calculated. The required operating pressure of the sprinklers had already been decided, as had the pipework specification and rating. The system was to use all polyethylene (PE) pipework with fusion-welded joints. This enabled friction losses, fitting and valve losses, and static rise and falls to be considered in the context of the whole design when sizing pipework. The largest pipework to be used was 315mm PE (12 inch). The completed system used some 120,000m (75 miles) of polyethylene pipework and 270,000m (169 miles) of control, communication and power cable.

Once the irrigation design covering all six courses, driving range, turf nursery and Bruce Embankment was finalised and approved by the Links Management, an accurate pump duty was confirmed at 573m<sup>3</sup>/hour (127,000 gallons per hour). For those of you who enjoy a cold beer this equates to over 300 pints per second. With pumping levels at this scale, a specialist pumping manufacturer was appointed to design the pump station in accordance with the tank engineers and the irrigation design team.

The final pump design was to utilise canned pumps - miniature extended shaft turbines - with variable speed on the lead pump and smaller jockey pump for hand watering purposes. The motors were also rated to operate at 1,450rpm as opposed to the standard 2,900rpm as they are more efficient during operation, and along with the variable speed will, over time, save the Links on running costs.

To ensure total flexibility during operation of each course system a separate central computer controller was located within each of the Head Greenkeeper's offices. This enables each Head Greenkeeper to be in total control of their watering regime on their individual courses. A master computer is also used to ensure each course stays within their water quota to ensure the central pump station operates smoothly and within the overall designed capacities.

The choice of field control was between central satellites and decoders. Even though a

central satellite system would have been more economically viable, a decoder based system was chosen due to the visual impact which standalone satellites would have had throughout the Links and the fact that the land over which the golf courses are played is bequeathed to the people of St. Andrews in an Act of Parliament and as such is open to public access. During the design of the central control system a compromise was actually chosen by locating remote interface units at strategic locations throughout the Links to reduce cabling requirements.

Needless to say, over a period of four years the complete irrigation infrastructure throughout the St. Andrews Links was carefully and painstakingly renewed by a dedicated team who must be commended for their considerable efforts. The system today forms one of the largest golf course irrigation systems outside areas of the United States.

*Adrian Mortram is Managing Director of Robin Hume Associates, who designed and project-managed the renewal of the irrigation system throughout St. Andrews Links.*



Computerised control system training

# Course Feature



Euan Grant

## History in the Making

Scott MacCallum meets Euan Grant, a man who fulfils an ambition at this year's Open Championship

It happens every five years and for many it really is THE Open when it does. I'm talking about a St Andrews Open Championship. Golf at the home of the game, an occasion which invariably provides moments in history that will be recalled for generations.

Doug Sanders' most famous missed putt of all time; Jack Nicklaus' two victories; Seve's joyous fist pumping when he birdied the last to confirm his win; Nick Faldo's domination; John "Wild Thing" Daly's play-off win after Costantino Rocca's amazing putt at the last forced a play off and Tiger Woods becoming the latest and the youngest man to complete the set of Majors. All command important notes in the annals of golfing history and all have occurred within the last 35 years. Of course, there are chapters on St Andrews going right back to Alan Robertson and Old Tom Morris.

"Luck!" is the one word answer, accompanied by a hearty laugh, which you get when you ask him how it turned out this way.

"I had no idea it would happen. It was pure circumstance, right place right time."

His arrival at the Old Course, less than 18 months before the Championship is all the more remarkable as he spent a period of time out of greenkeeping when he left Westerham.

"I'd loved greenkeeping since university and I knew that was what I wanted to do but I had an offer to work for the family civil engineering

company and I gave it a chance. But I missed greenkeeping big time and apparently I was miserable. I'd kept up my BIGGA membership and was reading the magazine avidly, going onto the website and talking to my pals about the weather and how particular grasses were doing," explained Euan, a former Toro Student Greenkeeper of the Year.

"Eventually I spoke with Kenny Mackay, at Marriot Forest of Arden, and thankfully he had the confidence in his own ability to give me, a former Course Manager, a job as his Deputy. He saw it as a good opportunity to get someone in who could do a good job so it worked well and I learned a lot from Kenny, particularly about attention to detail, and worked on several European Tour events," although Euan readily

admits he'd have taken any job at that stage just to get back into the industry.

Euan had explained to Kenny that he would look for his own course and that came when another man took a chance on him, this time Gordon Moir, Links Supervisor at St Andrews Links, who appointed him Head Greenkeeper of The New Course.

"It's a great golf course, possibly my favourite, rated 36th best in the UK, and I rang Gordon on the deadline day for the job and asked him if he'd got their man and if not could we could have a chat. I've done that before and it seems to work, although it would backfire if they happened to be out that day."

While on The New he worked closely with Eddie Adams on The Old Course and he learned a lot from the man who he was ultimately to succeed.



The St. Andrews' Old Course greenkeeping team

What will happen this year to join them? You can be sure someone will step up to the mark.

One man who will enjoy every single moment of the 2005 Open Championship is Euan Grant who will be experiencing his first Open Championship as Head Greenkeeper.

I first met Euan nine years ago when he was Course Manager at Westerham Golf Club, in Kent. He said at that stage that his ambition was to be the headman at an Open venue. This time round we met in the superb Links Clubhouse in St Andrews as he was making final preparation for this year's Open.

Any thought that this was the culmination of a well planned drive towards a top position at the most famous golf course in the world is quickly dismissed by Euan, who is as unassuming and modest as he is talented, readily admitting that there are better greenkeepers than him working on the Links.



"Eddie is a phenomenal fescue greenkeeper. I don't think anyone can touch him on his knowledge of The Old Course and he was always free with his advice. In fact on my first day in the job he caught me on my hands and knees looking at one of his greens. I was always asking him to come over and take a look at things for me."

Euan revelled in his work on The New Course using it as an opportunity to try out different things. "We stressed the greens out, we overseeded, we ripped into them we even tried Short Cut. I had no idea that The Old Course would be my next step."

That opportunity arose when Eddie was lured away to the European Tour and the chance to work on golf courses all over the world and Euan grabbed his chance to step up to the Old Course.

"It was a baptism of fire as we had The Amateur Championship within six weeks and then the Dunhill Links Championship at the end of the season and, of course, the prospect of The Open the following year."

He sometimes has to pinch himself that things have turned out the way they have.

"Every morning, when I drive in across Granny Clarke's Wynd, I think how lucky I am. It's a wonderful honour and privilege to be custodian of The Old Course and while working closely with our committees and trustees means I don't have a free hand to do whatever I want, I wouldn't want to make too many changes anyway."

What he has done is tweak some of the maintenance practices and let the rough grow a little.

"We are using greens triples on the fairways so we can use the groomer units and give a tighter cut while reducing the wear from dedicated fairway mowers" he said, adding that come July the fairways will be stimping at roughly the same as the greens.

"The fairways are running at seven and a half at the moment but given decent weather we will have them running at nine and a half or ten for The Open. Because of the 11th which is very exposed we can't have the greens over 10 and a half as we would be right on the edge, although we could get 13 or 14 out of some of the greens if we wanted."

He does believe that uniformity of speed shouldn't necessarily be a prerequisite for a golf course.

"I think practice rounds should allow players to determine the speed of various greens. Our 18th green is surrounded by buildings and on heavier soil that the 7th and 11th which are completely exposed and on pure sand, so to have them the same requires tweaking. That isn't a problem, but is that how golf should be played?" he questioned.

As for the rough, there is a little more on The Old Course than there has been in the past, but Euan is well aware that it is a course for the people and shouldn't be made too difficult to get round.

"I know in the back of my mind that people still talk about being able to putt their way round the golf course and in theory that is the case but allowing the grass to grow around banks and creating more habitats for wildlife is, I think, a change for the better."

People queue in the hope of a game from 3am - those who do will invariably be rewarded, even if it means waiting until 4pm - but it does cause Euan his greatest headache - divots.

"We still use mats from November to the end of March on The Old and alternate monthly on the other courses so the locals can always find a course to play off natural turf. What you do find is that everyone heads to the courses on the natural turf and the other courses are a lot quieter. Another annoyance is the golfer who takes two practice shots and two divots before lining up on the mat.

"We are trying to promote fescue grasses but they are slow growing grasses and slow to germinate, added to the fact that we don't feed or water," he said, adding that they had a team of dedicated sand patchers,"

They patch the entire course every Sunday, the only day when the course is closed, which affords the team the opportunity to do a lot of its maintenance work uninterrupted.

In the lead-up to The Open the regular team of 12 has been joined by one member of staff from each of the other 18 hole courses on the Links while their places on the other course are taken by seasonal workers, many of whom travel for all corners of the world to have the chance to work at St Andrews. They get the chance to work on the Old Course on Sundays.



# TurfTrax

Ground Management Systems

## TURFTRAX GROUND MANAGEMENT SYSTEMS LIMITED IS ONE OF THE COUNTRIES LEADING INDEPENDENT SPORTSTURF CONSULTANCY SPECIALISTS.

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TurfTrax offers a wide range of services to support golf and sports clubs and local authorities, including the design and supervision of construction or remediation projects.

Specifically, TurfTrax offers:

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TurfTrax meets the selection criteria stipulated by Sport England for appointment as Soils and Turfgrass Consultant Engineers. TurfTrax are also recognized and work with bodies such as The Heritage Lottery Fund, The Football Foundation, The Football Association, The Sports Council for Wales and The England and Wales Cricket Board. We have the expertise necessary in order to achieve the requisite Performance Quality Standards (PQS).

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During the week of The Open staff from all over the Links will be drafted in to help.

"It is a big team but we have huge double greens - the 5th/13th takes two guys 40 minutes to cut and to cut the greens six mowers will walk on average seven and a half miles each. We will also have six guys on bunkers every morning. As the course is out and in we have to be out early to avoid play."

Earlier in the year Euan met with the Championship Committee to determine pin positions and in the lead up to July they have kept well away from them, and changed holes every three days instead of the usual daily so that there would be fewer heads on the greens.

One of the final jobs Eddie Adams handled before leaving was to construct some new Championship tees adding length to the course.

"We are at our maximum now but strangely having the extra length should help the pace of play which is the R&A's biggest headache. There are several par-4s which would be driveable so the extra length means they don't have to wait on the tee, although the Championship Committee is considering having some call-on holes to speed things up."

Everyone pulls together on the Links teams and while each course has its own equipment they have to book out the specialist aeration or spraying equipment.

"The Old Course can't pull rank so you have to be organised and plan well ahead," said Euan.

All the Head Greenkeepers meet weekly with Gordon Moir to share information and discuss various ideas and issues to the benefit of all. Surely a Brains' Trust that would be the envy of many?

Euan is a fairly phlegmatic character, not a lot ruffles him, and he is sure that his team have the experience - his five senior greenkeepers have 19 Opens between them - and skill to meet any challenge that is thrown at them during the week. That just leaves the upside. What is he particularly looking forward to?

"I'm looking forward to seeing the golf course on the telly knowing it is going out to millions and that my staff had done their absolute best to produce it. It would also be nice to hear press conferences where the players are praising the course. I suppose that would be the ultimate."

So you can be sure that there will be some memorable exploits at St Andrews this year but Euan will be logging everything, even the most mundane, in his personal memory banks.



# Course Feature



David Cole

## Dreaming of Dry Land

**As Scott MacCallum discovered Loch Lomond is working hard to ensure that its one weakness will no longer be an Achilles Heel.**

There can be few places on earth which provide a more attractive environment in which to play golf than Loch Lomond Golf Club. A superb Tom Weiskopf and Jay Morrish created course, a magnificent clubhouse and scenery to make every chocolate box tin designer salivate, and it ranks highly on all counts.

Each July, the week before The Open, the cream of world golf descend on the course for The Barclay's Scottish Open and Peter Alliss gives full rein to his imagination and descriptive powers as camera lenses pick out luxurious motor cruisers on the loch, some interesting wildlife and young children in the gallery who have taken advantage of annual access to a very exclusive club.

But for many years the idyllic setting of Loch Lomond has hidden a secret. Not a secret which would find its way into any Harry Potter book, but one which would certainly have greenkeepers breaking out in a cold sweat, sizing themselves up for a strait jacket or even applying for the next series of Big Brother.

You see, everything at Loch Lomond is perfection itself, apart from that is, what is under the manicured turf. The green staff have performed heroics to mask the unpalatable truth that while everything above ground at Loch Lomond is state-of-the-art everything underground isn't.

Ken Siems, who was long time Superintendent at the Club and is now Director of Agronomy covering both Loch Lomond and recently purchased sister club, Dundonald, and David Cole, who has been Superintendent for the last couple of years, along with his Assistants, Sue Rothwell and Peter Haggarty, have battled long and hard to improve the situation, but the sponge-like subsoil, coupled with the fact that Loch Lomond has - at 80 inches a year - one of the highest rainfall averages in the country, has meant that preventing soggy Footjoys and damp lies has taken a disproportionate amount of time and effort.

But hopefully that will all be a thing of the past as a recent move within the club has been the catalyst for some pretty serious drainage work. In fact, once the drainage programme has been completed there could be as much as 80,000 metres of pipe underground - that's over 50 miles!

Last year the club moved to a £55,000 deposit based membership, which increased the expectation levels in all areas, including the quality to the golf course.

"We'd always done a lot of drainage work on the course, mainly remedial work on trouble spots, but the recent membership conversion upped the ante and we agreed with the owners that we needed to implement a major drainage programme to make the course drier and improve the quality of the turf for our members," explained David, who has been at the club for 10 years.



The Loch Lomond Greenkeeping Squad

Ken and David explained the options and their implications, which ranged from sand capping the entire course to more conventional, but still radical, schemes.

"Sand capping the entire course to a depth of around six inches is expensive but it is almost 100% proof and it produces a firmer surface and subsequently maintenance is easier because you can hollow core safe in the knowledge that you won't be hitting rock," explained David, who has carried out some targeted sand capping on specific areas, approximately 10 Hectares in total.

If it wasn't for the fact that it would have involved closing the course for a year it may have carried the day but the need to keep the course open for the members meant it was never a serious option and the next best plan was given the green light - a complete, intensive drainage programme covering the entire course with the work being carried out in phases over the close season. Loch Lomond is closed from November 1 to April 1 every year.