

Award-winning magazine of the British and International Golf Greenkeepers Association



July 2006 – £3.80

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INVESTOR IN PEOPLE

Greenkeeper INTERNATIONAL

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When you have finished with this magazine please recycle it.



Welcome

A GOLFER'S VIEW

Fancied a game at the weekend just past. I could sneak off because, well, the garden is looking after itself at the moment. No need to cut the grass - it hasn't grown in ages. It's going a little brown but, hey, can't do anything about that when the bans are in place can I? Pressure off!

No, a game of golf was called for, so off I went. Couldn't believe it! What a disgrace, the course was as bad as I've seen it for, well, since ever. Now I know what a good golf course should look like. We all do. We see them on the telly every week. Green! A golf course should be green. They even call the things we aim at but rarely find "greens". Well not at my place. Not any more at any rate.

Now our 1st is a short par-4. A nice starting hole, because if you don't get it off the tee very well - and who does when you've just fallen out of the car, grabbed your clubs from the boot, pulled on your shoes and built up a sweat running to catch up the rest of your fourball - you know a well struck 5-wood off a good lie will still get you on the dance floor in regulation.

Sure enough the tee shot scuttled off its usual 150 yards but, not so usually, it was straight and I thought "Whew hey, I'm on for a good 'un today." But when I got to the ball the first thing I noticed was the lie. Where was the juicy grass sitting under the ball, which creates the launch pad for my secret weapon - the trusty 5-wood?

It was like playing off the M25, but I don't mind telling you, I pride myself on my ball striking and this was one of my best. I nipped the ball off the surface so well, if it had been off the tummy of a sunbathing supermodel she wouldn't have known I'd been there. The ball didn't rise more than 20 feet and it was going like a rocket. I regained my balance and waited for the applause from my three partners who were further up the fairway. I was thinking birdie. I was thinking handicap reduction. I was thinking - why has it bounced straight through the green and gone up against the fence at the back?

Unplayable, it was. Unplayable! Took a drop, knocked it on and sure as night follows day, three putted. A seven!

Well, it didn't get any better, and it was roasting hot so I packed in at the 9th. I was frustrated and I was furious. Why is the course in such a state? I pay subs for all year golf and while I can accept a drop in standards when it snows or we've got thick frost, I can't for the life, of me understand why it's so rotten now, in the height of summer.

So what do I do with myself now? I can't even wash the car because of these blessed drought restrictions.

Anonymous Contribution as told to Scott MacCallum

Scott MacCallum, Editor

COACHING DAY

The South West Section, are staging an L12 Coaching Day at Cumberwell Park Golf Club, on September 26, 2006. The day will take place from 9.30am until 4pm. Please contact Marc Haring, Education Officer, for further details on 01225 863322 or 07816 106146.

Cost will be in the region of only £20 thanks to sponsorship from the GTC. The day is open to members from other Sections, as well as the South West.



Will Harris, Machinery Manager at Minchinhampton, supervises trainee Chris Dodd, while preparing a machine for use

VETERAN GOLFERS PROVE AGE IS NO HANDICAP

Veteran golfer Frank Rogers, proved that age is no handicap, by notching his first hole-in-one at the age of 76!

Frank, a retired Stonemason from Burland, near Nantwich, hit an ace during the Reaseheath Vintage Open - a tournament for golfers over 70.

The competition, organised by Golf Course Management and Sportsturf students at Reaseheath College, Nantwich, attracted almost 50 competitors from all over Cheshire including a contingent from Hazel Grove Golf Club.

The Stableford competition was held on the college's commercial 9-hole golf course. The competitors were also able to take part in chipping

and putting contests.

Winning lady was Joan Yarwood of Scaife Road, Nantwich, also a member of Reaseheath Golf Club, with 37 pts, while Monica Norman of Lochleven Road, Wistaston, a member of Brookfield Golf Club, was not far behind with 34 pts. Overall winner was Bill Harris of Merebank Road, Dane Bank, Crewe, who scored 42 pts, while Brian Gough, current Captain of the Reaseheath Golf Club, was runner up.

Proceeds from the day will be donated to the County Air Ambulance, which operates in an area including Staffordshire, Shropshire and Derbyshire.

GREENKEEPER INTERNATIONAL WINS

Greenkeeper International has the finest front covers in the world.

That has to be the conclusion after the magazine won the 2006 International Photography Section of the American-based TOCA (Turf and Ornamental Communicators Association) Awards, with our 4x4 inspired cover of the August 2005 issue.



The cover was submitted by Greenkeeper International's Designer, Marie Whyld, and it competed with entries from all over the world.

"I'm delighted that the quality of Greenkeeper International has been recognised by TOCA and commend Marie for the winning front cover and her continued good work in the magazine," said Editor, Scott MacCallum.

RETIREMENT AFTER 40 YEARS

Dennis Ellicott, Parts Manager at PJ Flegg, the South West dealer for Ransomes Jacobsen, has retired after 40 years of service in the grounds care industry.

Dennis completed 23 years at Flegg's and a further 17 years at Stanley West in Exeter. Having grown up on a farm, he was always interested in mechanical equipment and after leaving school he began his working life in the motorcycle trade. After just a couple of years Dennis was moved into their Parts department and has been in the parts business ever since.

Ransomes Jacobsen's Phil Naunton, International Parts Manager and Stephen Mitchell,

Customer Care Director, visited Fleggs to present Dennis with a special copy of the Ransomes 200-year history book, signed by the Directors at Ransomes Jacobsen Ltd as a thank you for his commitment to our industry.



Left to right - Phil Naunton, Dennis Ellicott And Stephen Mitchell.

CHARITY GOLF DAY

Rachel Thorpe, from Weston Park Hospital Cancer Appeal, would like to thank Neil and the Sheffield Section for all their hard work and support.

The Sheffield Section collected donations for the hospitals charity golf day, to be held at Hallamshire Golf Club.

"The success of our annual golf day really does depend on generosity of this kind. This is a showpiece event for our charity and makes a significant contribution to our work with cancer patients," said Rachel.

Weston Park Hospital Cancer Appeal raises funds to support research, improve treatments and

the care of people with cancer. The hospital is one of only three purpose built, dedicated NHS cancer hospitals in the UK. We serve the 2 million people in the South Yorkshire and North Midlands region, but act as a nationwide specialist hospital for some cancers. Our researchers work at local, national and international levels and the charity has built and core funds a specialist Cancer Research Centre. We have also recently opened a Cancer Information and Support Centre which is open to anyone who has cancer, their families or supporters/colleagues who need reassurance or advice. For more information call: 0114 2265370 or visit www.cancerappeal.org.uk

BMW SUPPORT TEAM, WENTWORTH

Once again a team of volunteer Greenkeepers were on hand at The Wentworth Club for the BMW Championship, held at the end of May.

On this occasion a small team were on stand-by duty on the Thursday and Friday of the event, in case of bad weather, with a full complement of forty volunteers available for bunker raking on the last two days.

Fortunately the heavy rain that was forecast (during the period of severe drought!) did not transpire, so the team were only required for squeegee duties for a short time on Friday and late on Saturday.

The sun did shine for the visit of our Chairman, Richard Whyman, enjoying his first visit to the course.

Over the past few months many alterations, instigated by Ernie Els and Chris Kennedy, have taken place on

the West Course at Wentworth, including the addition of thirty new bunkers that have already blended in well, and eight new teeing grounds, all without changing the nature of the course.

David Howell was a worthy winner on a course superbly presented, in sometimes very trying conditions, as always, by Chris and his Greenstaff.



DE VERE CARDEN PARK WELCOMES NEW BLOOD

Peter Pattenden is to take on the role of Estate Manger, of De Vere Carden Park, Chester succeeding Andy Campbell MG CGCS, who moved to the Dukes in St Andrews recently. Peter joins Carden Park from The



Gleneagles Hotel, Perthshire, Scotland, where he was responsible for the maintenance and management of the PGA Centenary Course and greenkeeping team. Peter has worked in the greenkeeping industry for fifteen years, starting his career at The Gleneagles Hotel, as a Greenkeeper. After gaining experience as a Deputy Head Greenkeeper, at Bonnyton Golf Club, East Kilbride, Peter returned to The Gleneagles Hotel, but this time as Head Greenkeeper. In his previous role, Peter managed a team of 21 greenkeepers, which rose to a team of 32 during busy tournament periods. During his time in this role, he managed the team in preparation of the PGA Centenary Course for five European Tour Events, five Scottish PGA Events and one Ladies International Match Play. His dedication and high standard's, whilst overseeing the PGA Centenary Course, were a contributing factor in the course's selection for the 2014 Ryder Cup.

RACE FOR LIFE

A team of ladies from BLEC Specialist Landscaping and Turf care Equipment, took part in the largest women-only fundraising event in the UK - Race for Life.

Held at Burghley House, Stamford, Lincolnshire, on May 14, approximately 4,500 participants turned up on the day, all willing and able to walk or run 5km to raise funds for Cancer Research UK.

"Most of the members of our team have family or friends who have suffered from cancer at some time in their lives, but thankfully have survived." said Sue Mumby, Director of BLEC: "We all wanted to take part and give a little of our time and effort to support this incredibly worthy cause. Between us we hope to raise over £1500."

This years target is £46m and anyone wishing to take part or make a donation should look on the website www.raceforlife.org for further information.

RETIREMENT



The British Association of Golf Course Constructors, has announced the retirement of David White, its long-serving Secretary come Public Relations Officer. Coming from a career in sports journalism and

bringing with him a passion for the game of golf, its history and architectural development, David was perfectly suited to see the BAGCC through several different phases of its 27 years history. He insists now, that it is time for him to pursue his other great obsession; restoring and driving classic Porsche sports racing cars.

"I regret not being active in the BAGCC during the balmy period of golf course construction in the 70s," David said, "the so-called 'golden age' of land development and a time when every golf course constructor and architect boasted full order books and, quite often, waiting lists. Things are different now, with much more construction work being undertaken in mainland Europe, though there remains a demand for older courses to be refurbished and hazards repositioned to keep pace with ever-increasing length from the tee."

With David's retirement, the task remaining appears to be to find his successor, with a brief that may include some writing, though more likely calling for a flair at encouraging members and persuading prospective members of the benefits to be gained in working together for the betterment of this vibrant industry.

HUNT FOR OLDEST VERTI-DRAIN

Charterhouse Turf Machinery, is searching the nation for the oldest working Verti-Drain turf aerator.

Turf managers simply have to provide the serial number on their Verti-Drain, together with a photograph and a brief history of the machine. Once the oldest working model is established, its owner will receive a modern version.



One hopeful entrant is Theydon Bois Golf Club. The Essex course bought its machine back in 1990.

NEW WEBSITE PROMOTES ENVIRONMENTAL SUSTAINABILITY IN GOLF



Golf Environment Europe has launched a new online resource - www.golfenvironmenteurope.org

Among other things, this new website aims to provide information to golf course managers, greenkeepers, owners, developers and architects; promote examples of environmental sustainability within golf course management and promote the greening of golf events.

Referring to the website, Maria Strandberg, Chair of the European Forum for Golf and Environment said: "This website is a valuable addition to the golf sector's efforts to tackle environmental issues. It is fundamental to the better exchange of information with government and environmental bodies. It will improve communication and raise awareness within the golf

sector itself. Over time it will develop into a centre for technical information on ways to better address issues such as water, landscape and biodiversity conservation; on how to adapt to and mitigate against climate change, and about how to minimise waste and energy consumption."

She added: "We will also use the site to provide open access to the work of the Forum for Golf and Environment, to ensure its total transparency. We want the outside world to be able to see the discussions that golfing and environmental organisations are engaged in, and the types of practical projects golf is working on to address these major societal issues."

The development of the website has been facilitated with funding from Deutsche Bank.

ETT'S DAY OUT AT THE REEBOK

At a recent Premier League match Sam Allardyce, Manager of Bolton Wanderers presented Richard Lawrence, Managing Director of ETT, with an Investors in People award.

The presentation on the pitch was the highlight of an exciting day out for the entire ETT team which included a tour of the stadium, where the ETT staff met a number of current and former players. Also at the presentation was Richard Norton, Head Groundsman at the Reebok, who has worked with ETT for a number of years and despite often difficult



conditions, has produced consistently excellent facilities. Roy Winter of Business Link who had advised ETT on the procedure of attaining the Investors in People award was also present as the guest of ETT.

KENNEMER GOLF AND COUNTRY CLUB PREPARE FOR THE KLM DUTCH OPEN

Kennemer Golf and Country Club, will be hosting the KLM Dutch Open this August, one of the European Tour's major events.

Originally designed by Harry Colt in 1920, the course at Kennemer Golf & Country Club, situated on the coast at Zandvoort, is one of the oldest in the Netherlands.

The original 18-hole Colt design is a classic links course requiring great accuracy, especially when the wind blows off the sea.

To ensure the best possible playing surfaces are achieved for the KLM Dutch Open, Kennemer will be using Jacobsen LF-4675 light fairway mowers, complete with turf groomers and rear roller brushes, on their fairways.



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VINTAGE LAWN MOWERS

Andrew and Michael are the founders of The Hall and Duck Trust - collectors of Vintage Lawn Mowers. The trust, which aims to save and preserve artifacts of turf care to educate groundsman on machinery history, boasts almost 1000 lawn mowers dating from the 1850's to the 1940's. Find out more by visiting: www.hdtrust.co.uk



At the annual meeting of The OLMC at Milton Keynes Rural Life Museum. Andrew Hall (right) and Michael Duck (left) are pushing a Lloyds Leda gang mower, rigged with an oversize handle.

GETTING THE LEGAL MEASURE ON GPS DEVICES

Since the launch of the new GPS devices, concern has risen that club revenue generated through the sale of stroke saver booklets, may be significantly reduced and eventually, lost altogether. Michael Shaw, National Secretary at the NCGAA, comments: "The satellite measuring technology is relatively new and still has a period of trial and error to go through. During this time, manufacturers will be keen to ensure that their technology evolves to offer the greatest accuracy possible. Taking this approach could provide clubs with an alternative source of income, to compensate that lost through reduced stroke saver booklet sales."

Growing in popularity, the new GPS measuring devices have provoked mixed response across UK courses. In particular, clubs where the course has been mapped and made available to users of the GPS devices, are questioning whether their rights

have been violated. Argument has been made, that similar to unauthorised photography, measurements of a course cannot be taken without the owner/club's permission. There is now no law to prohibit the taking of aerial photographs of property and therefore, taking the measurements of a course from an aerial photograph falls into the same category."

There are approximately 1,266 UK GPS course maps now available, which claim to help improve a golfers' game and speed up play. "Clubs do have the right to impose local rule banning or restricting the use of GPS devices. However, before taking any such action, we recommend that clubs consider member opinion and balance their views with how a ban or restriction may impact on revenues," added Michael.

RYDER CUP

Wales is a hive of activity as the Celtic Manor Resort in the City of Newport hosts the prestigious Wales Open and prepares the new golf course, ready for the Ryder Cup in 2010.

New workshop facilities are planned to service this championship course - to be equipped with Bernhard and Company grinders.

"We plan to have their latest Express Dual 5000 spin grinder, which has an enclosed cabinet to minimize noise and dust levels," said Cal Callaby, Workshop Manager. "With this highly automated machine we can complete other tasks while the mower blades are being ground."

A series of existing barns will be converted to create the new workshop.

"As the new clubhouse overlooks the four barns part of the planning condition is they have to be built to resemble a farm layout," said Jim McKenzie, Director of Estates Management and Ryder Cup Courses Development. "Our current maintenance facility services the Roman Road and Coldra Woods courses, but is more than a mile away from the new Ryder Cup course. Logistically an additional facility is vital. Through a costing exercise, it was found otherwise that lost man-hours in travelling to and from the new course would be significant."

Non-interference during tournaments was also essential. "You cannot have machines crossing the Roman Road course to get to the Ryder Cup course," said Jim. "We are in the process of planning the workshop and Cal Callaby is carrying

out a machinery appraisal taking into account the new holes."

A key concern to Jim, Director of Estates Management and Ryder Cup Courses Development, is keeping the Wales Open Course and new Ryder Cup Course in A1 condition. Based in hills and valleys with a generous rainfall is proving a decided advantage and the resort has been designed to be self-sufficient in its water supply.

"Luckily, we are in an area renowned for its rain levels and this is a tremendous asset, as we harvest water in the wetter months, store it, and use it on our courses during drier periods," says Jim.

"Permanently re-cycling our water in this way works well and we are also careful to select grass species which are more drought tolerant."

Irrigation and drainage specialist MJ Abbott has been involved in fitting more than 2,400 sprinklers at the resort, to cover the Coldra Woods course, Roman Road course, driving range, turf nursery and the new Ryder Cup course.

"It is vital to ensure shaping incorporates the provision of water collection on the modern golf course," says Nigel Wyatt, Contracts Director for MJ Abbott. "Storm water collection is the key to successful recycling of water, particularly within the summer months," says Nigel.

For more information about MJ Abbott, specialist in golf course construction, irrigation and drainage - Tel: 01722 716361; or visit www.mjabbott.co.uk.



18-HOLE GOLF COURSE FOR QUEEN'S FAVOURITE TRACK

Ascot's £200m facelift includes: a new 400 metre long, curved grandstand; eight restaurants; 265 hospitality boxes; a sunken reservoir on the heath to give the course its own water supply and an 18-hole golf course.

Re-opened on June 20 by Her Royal Highness, this amazing facelift was completed in less than two years and can now accommodate 57,000 racegoers.

GOLF RESORT INVESTMENT

Kevin McColm, De Vere Dunston Hall's Golf Course Manager, has developed colourful new course furniture and launched a machinery investment programme to improve playing conditions and attract top amateur competitions.

Kevin explained the changes on the golf course: "De Vere Hotels and Resorts have new corporate colours, so I thought I would 'do different' in the Norfolk tradition and use the De Vere logo with its purple and cream colours on all our golf course furniture. As well as brightening up the course, it is part of my overall drive to improve presentation."

Flags, flag pins, hole cups, divot boxes, bins, ball washers, signs and even the putting green flags and cups have been given the purple and cream makeover at the Norwich course. "Our members and visitors have all commented very favourably. I would like to thank our supplier Andrew Corns of Acorn Golf and the production company BMS, who valiantly entered new territory to complete the golf course furniture project."

More than £130,000 has been spent buying additional equipment to redeveloping areas of the golf course to increase standards. "Dunston Hall is a busy course with a flourishing membership. It is also a very popular golf destination. But we are keen to attract top amateur and local pro-am competitions," added Kevin, "so have embarked on a five year investment programme to enhance the presentation and improve the playing surfaces."



The Dunston Hall golf course team with some of their new equipment

HOSE BAN? IT'S NOT ALL BAD NEWS...

The threat of a hosepipe ban may drive the fear of dread into every grounds Maintenance Manager across the country. However, for those lucky enough to have a synthetic surface it is not all bad news. The dry weather offers the ideal opportunity to carry out specialist maintenance work to your synthetic pitch which could not otherwise be done in wetter months.

Contamination levels can build up on a synthetic surface, this will cause it to harden and problems with drainage and silt-like deposits will begin to form after heavy rain.

Due to the very specialist nature of the operation a Revite® can only be carried out in the dry. The

process involves removing the top part of the infill using rotary brushes and whilst the infill (sand/rubber) is air-borne a powerful vacuum extracts the fines and dust which cause the contamination. The cleaned infill is then sieved to remove larger particles before being returned back to the surface. Dependent on the severity of the contamination the process can take anywhere between 1 and 6 machine days to complete on a full sized surface.

For more information contact Technical Surfaces National Office on Tel: 08 702 400 700 or visit: www.technicalsurfaces.co.uk

NORTH STAFFS PROVIDES IRRIGATION FOR THE OPEN

Staff at North Staffs Irrigation, will have more than a sporting interest in this summer's coverage of the Open Golf Championship.

The irrigation and drainage specialists have been carrying out alterations to the irrigation system at Royal Liverpool Golf Club, for more than five years in preparation for the Open.

In a project requested by the R&A, North Staffs have installed a new stand-alone system on the practice ground, which has been designed to allow single head control, as the area will house a tented village during the Championship. Its Logic 2100 controller can shut off any one of the 360° Hunter G90 sprinklers if an obstruction is in its path, while continuing to irrigate the remainder of the area.

Just prior to the main event at Hoylake, many of the World's finest young golfers will take part in the Junior Open Championship at nearby Heswall Golf

Club. While the biennial tournament will take place on the original 18-holes at the parkland course, it's currently being remodelled to include five additional holes designed by Tom Mackenzie, which are being built by constructor John Greasley on newly acquired land. Under the guidance of irrigation consultant's Zic, North Staffs will then install an independent system, providing irrigation to the greens, tees and approaches on the five new holes and one hole of the existing course.



TRAINING IS THE KEY TO SUCCESSFUL GREENKEEPING

Training doesn't have to be expensive, or mean employers must send staff off to college. "Most greenkeeping skills training should be carried out at the golf course, by the Course Manager, with only specialist skills covered by statutory regulation such as, Health & Safety or pesticide spraying, needing external input," said Education Director at the Greenkeeper's Training Committee (GTC), David Golding.

"All too often I hear from Course Managers that the club won't support staff training or staff aren't currently going to college due to budget cuts," continues David. "I have to say that in answer to both of these comments, it is often down to ignorance about the modern formal training system."

He explained that all staff must have some skills to do what they are employed for. "Where they have been taught their current skills is irrelevant," said David. "However, employers should be looking to develop their staff to their maximum potential."

The GTC has trained many Course Managers and several deputies to be aware of their formal role in training and assessment. "But so often I hear that trainees feel they are not receiving the level of support from their boss, especially when they have been registered on a vocational qualification or apprenticeship," said David.

He reminded employers that Course Managers - or in some cases, the deputy - must be formally involved with the centre where the learner is registered for vocational qualifications.

"Any competent Course Manager will be involved in their staff skills development, at the same time keeping the employer informed of their own continual professional development.

"The GTC makes no apologies for raising this problem as it has invested heavily in Course Manager training to ensure skills development can be the norm at the golf course," David said.

He explained that the land-based colleges who have traditionally "taught" greenkeepers have, in the main, now accepted that the skills should be coached by the Course Manager and have designed various methods of offering the knowledge and qualifications through different delivery methods.

"Our friends in the colleges do still have a major role to play with academic courses and qualifications such as the Higher National Certificate or Foundation Degree and these awards can be studied in a variety of ways including on-line and distance learning."



STANDARDS, WHAT STANDARDS?

David Golding, GTC's Education Director, discusses the lack of greenkeeper training systems.

Following the circulation of a Greenkeeping questionnaire to all European Golf Associations by the R&A in 2004, it was clear through the analysis that many countries have no greenkeeper education and training systems in place.

Obviously, countries where the game is very much in its infancy, employers rely on importing qualified staff to manage the course and often local labour is used to maintain the course.

One clear message came out through the replies and that was, that many countries were seeking assistance to develop their own system for educating and training greenkeepers.

The R&A, as members of the GTC, asked for a response from the Board as to how assistance could be given to these countries based on the years of experience the GTC has in greenkeeper education.

The Board allocated some time for me to develop a response and this has involved joint meetings with representatives of both BIGGA and FEGGA.

It was clear from the outset that all representatives saw an opportunity to not only assist golf developing countries but also to consider recommending to the R&A that this support could be better delivered through agreeing a set of standards for greenkeeping.

A pan-European advisory group has been established and its recommendations will be circulated to all appropriate golfing organisations very shortly.

On a personal note I have to say this advisory group has been united in the will to be part of an initiative that will benefit the game as a whole and there has been no "personal or political" gain throughout any of the discussions.

There is still work to do on the proposal and when the standards are agreed, it will be for each country to deliver programmes of education and training to meet the pan-European standards in a manner to suit the country.

The group recommended three levels for the occupational standards:

1. Golf Course Greenkeeper.
2. Golf Course Supervisor.
3. Golf Course Manager.

A list of skills with the related knowledge will now be developed for each level and the group will circulate these as a minimum standard for consultation. It is also suggested that a Certificate be issued when a student has met the European standards through their country's



system of qualifications. A rigorous quality assurance system would be established to maintain and monitor the Certification Scheme.

The advisory group suggests there are many benefits for the greenkeeping sector to have pan-European standard's not least that employers throughout Europe would know exactly what skills and knowledge any applicant for employment would have, when presenting a certificate achieved through the system. The benefits to greenkeepers would include the opportunity to move within the European greenkeeping community with certificate(s), which are respected and understood by employers.

It is hoped that all the Golf Unions and Federations, will support this initiative and with the Greenkeeping Associations, BIGGA and FEGGA already fully supporting the advisory group's work, there is a great opportunity through education and training to unite even closer the greenkeeping profession.

The R&A, the European Golf Association and the PGA European Tour are being kept fully informed of the advisory groups work as their support and endorsement for this initiative will be vital to its implementation.

Updates on this project will be posted on the GTC, BIGGA and FEGGA websites as work progresses.

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Education Update

Ken Richardson outlines some of the Education Department's projects over the next few months.

July is another hectic month in the Education and Training Department, as we begin judging the Toro Student of the Year competition; begin judging the BIGGA Golf Environment Competition, supported by Scotts, Syngenta, Ransomes Jacobsen and Course Care; get involved with setting European standards of competence and finalise the Continue to Learn Programme for Harrogate Week 2007.

TORO Student of the Year 2006



Judging for this year's Student of the Year Competition took place at the beginning of this month with eight finalists being selected from 36 high quality entries. The final of the

Competition takes place at BIGGA House on Monday, 18 September. See future editions of Greenkeeper International for details of the National Finalists.



BIGGA Golf Environment Competition

The deadline for this Competition, supported by Scotts, Syngenta, Ransomes Jacobsen and Course Care was at the end of June. The entries have been checked before being delivered to the STRI where Bob Taylor and Lee Penrose will begin the judging process. This first stage of judging selects the clubs that will receive a visit from one of the SRTI ecologists throughout the summer. Prize winners should be notified in early October and all prizes will be presented during Harrogate Week.



Following the extremely successful Continue to Learn Week at Harrogate last January, it has been difficult to extend the amount and range of education on offer. However, by working with the GTC, the R&A, the AGCS, the EGU and our industry partners, we have managed to improve the programme even more. With extra workshops and more seminars targeted at greenkeeping staff, groundsmen, secretaries, golf club managers and officials there is, truly, something for everyone. Not only that, we have listened to feedback that expressed concerns regarding cost and we shall be operating a discount scheme for those attending more than one seminar. This will apply to clubs and individuals so the more you send the cheaper it gets.



Pan European Greenkeeping Standards

As David Golding outlines, the R&A carried out a survey of all European Golf Unions/Federations in 2004, to gauge the need for a common set of competence standards throughout Europe.

The feedback showed that there was overwhelming support for common standards and it also showed that some countries would welcome help in implementing those standards. Therefore, the first meeting of the Pan European Greenkeeper Education Unit, took place last month to determine the way ahead. The meeting, hosted by FEGGA, brought together delegates from Switzerland, Germany, Holland and the UK to look at how European Standards could be introduced; how the various countries could meet the Standards and to look at the need for a European qualification.

At this stage, you might well ask why we need yet another qualification in the UK when we have a wide range of qualifications from N/SVQ to Masters Degree. This was one of the first questions discussed at the meeting and it became clear that many of the countries in Europe had their own education and training systems that led to the award of qualifications. Moreover, it became clear that there was Europe wide acceptance that there were three types of job on golf courses, ie Golf Course Greenkeeper, Golf Course Supervisor and Golf Course Manager. Each country has its own range of job titles but the jobs done on golf courses fall into three distinct areas.

Their meeting made four main recommendations:

- European Standards should be developed that reflect the three types of job on a golf course, i.e. Golf Course Greenkeeper, Golf Course Supervisor and Golf Course Manager.
- That each country in Europe should be encouraged to apply to have their greenkeeping qualifications recognised as meeting the European Standards.
- That European Certificates of Competence should be issued to individuals throughout Europe whose, in-country qualifications meet the European Standards.
- That the European Greenkeeping Education Unit (EGEU) should be established.

European Certificates of Competence would allow greenkeepers to seek employment throughout Europe and employers would be able to easily check that job candidates held an appropriate qualification and were competent to 'do the job'.

Countries new to golf and just starting to develop their education and training systems or those without systems in place could be given guidance and help to meet European Standards.

Further meetings are planned later this year to determine the Standards, suggest a business plan and determine quality assurance procedures.

Rachael and Gemma would like to welcome 66 new members to the Association and talk about sun exposure.

PROTECT YOURSELF FROM THE SUN

Exposure to Ultraviolet (UV) radiation from the sun, can cause blistering, sunburn and in the long term can lead to skin cancer. Outdoor workers receive, on average, three to four times more UV exposure each year than indoor workers, which in turn puts outdoor workers at greater risk of non-melanoma skin cancers. People who are regularly sun burnt are also at increased risk of malignant melanoma, which is one of the most dangerous forms of cancer.

To reduce the health risk of working in the sun the following suggestions are advised:

- Encourage workers to keep covered up with a long sleeved shirt and a hat with a brim or flap, that protects the ears and neck. Tightly woven fabrics offer better protection.
- Consider scheduling work to minimise exposure such as reserving sheltered jobs for the middle of the day or rotate staff on different tasks to limit exposure to the midday sun.
- Encourage workers to use a sunscreen of at least SPF 15 and apply regularly.
- Encourage workers to take their breaks in the shade if possible.
- Encourage workers to drink plenty of water to avoid dehydration.



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JULY'S MEMBERSHIP DRAW WINNER

Just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a monthly draw to win a £10 Music Voucher. Our congratulations go to Duncan Gray of the Pines Golf Centre.



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Robbie Macbeth, Ayrshire
Clinton Maxwell, West
Gordy Maxwell, West
Craig McCorrie, East
Derek McLeod, East

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Robert Bemment, East of England
Shaun Bodkin, East Midland
Alan Harper, Midland
Nigel Harris, Midland
Robert Hogan, BB&O
Andrew Nelson, East Midland
Jamie Pack, East Midland
Simon Pech, East Midland
Terence Prior, East Midland
Thomas Tasker, East of England
Mark Turnbull, Midland

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Damien Daly, Ireland
Stephen Davies, Ireland
Ricol Erickson, Central Scotland
Mark Gemmill, Essex
James McEvoy, Ireland
Hugh McNamara, Ireland
Graeme Mutch, Sheffield
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Aidan Quirke, Ireland
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Craig Sears, North West
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SUMMER OFFER

To help you cover up this summer BIGGA have added two styles of cargo beanie hats to its merchandise range.



The Cargo Beanie is made from 100% cargo nylon and has an elasticated draw cord size adjuster with toggle. It also has a towelling sweatband and a mesh lining for extra comfort. This beanie is available in Navy with a Stone trim or Stone with a Navy Trim.

The Textured Pocket Beanie is made from 100% textured cotton and comes with a side pocket. One size fits most. This beanie is available in Stone or Navy.

Both hats are available for the special offer price of £5.99 (normal price £7.99), BIGGA logo hats are available for £7.99 (normal price £9.99).



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YOUR LETTERS ARE REQUESTED!

Send to: Scott MacCallum, Editor, Greenkeeper International, BIGGA HOUSE, Aldwark, Alne, York YO61 1UF, or email them to: scott@bigga.co.uk.

Dear Sir,

I would like, through the pages of the BIGGA magazine, to thank Rigby Taylor for the recent trip to Angers, France and the 'Top Green' seed research station at Les Alluar. Myself, along with a good cross-section of other turf professionals, enjoyed a well organised, informative and thoroughly enjoyable excursion across the channel. The proficiency of the RT representatives was only 'topped' by the enthusiastic and passionate presentations, tours and talks by Brian and Stephen which managed to keep us all highly interested even in temperatures of 30 degrees plus.

It was genuinely pleasing to learn new things both in the classroom situation and out on the various sites, literally, in the field. Although a golf greenkeeper myself, I found it a huge benefit conversing with other colleagues from football, turf producers, landscape designers etc. One sometimes forgets just how important the humble grass plant is and equally how those of us who are in the industry of growing it, usually in the most difficult of circumstances, are just as important. An observation

Letters ▶▶

that was not lost on these astute seeds men and a real ego booster to those who were sat around the table listening to them tell us. Which, I feel, needs to be passed on to everyone who reads the pages of this magazine, especially for those who are suffering from low self esteem because of some mad golf club policy or green chairman/captain's vindictiveness. You're damn clever at what you do!

Anyway, stepping down from my soapbox. I would like to thank Rigby Taylor and their representatives, once again, for an extremely educational trip and for looking after us so well. Should anyone else get the opportunity to venture out to this incredible place, then I suggest you grasp it with both hands.

Ian Lavelle
Course Manager/Head Greenkeeper
Whitby Golf club

As Easy as ABC



You never stop learning so, in conjunction with the GTC and lecturers from some of the UK's top greenkeeping colleges, GI has launched a new series which gives the developing greenkeeper the chance to add to their knowledge with some useful advice.



Ian Butcher - International Development Officer

BUNKER RAKING - A CHORE?



Why is it that apprentice greenkeepers in our classes at Elmwood, regard bunker raking as somehow a poorer quality job than say mowing fairways, and as a result take less job satisfaction from it?

Bunker sand is as much a playing surface as any other part of the golf course. And what do greenkeepers do for a living? Prepare a playing surface for golf! Now there are many sand raking techniques employed for different effects and I haven't space to explain them all. Rough or flat raked is the current debate, and Jack Nicklaus took enough of an interest in course set up at the Memorial Tournament at Muirfield, Ohio, deliberately to take a tine out of each rake to create an unpredictable lie. Suffice to say the Head Greenkeeper will dictate how the bunkers are to be prepared on a daily basis. What I want to highlight here is that it is about perspective and attitude. If you see a job as a chore, so it will be. But if you can see each task on the golf course as equal in value in terms of contributing to the whole then a proper sense of job satisfaction is more likely to occur.

Approach each bunker as you would a putting green: ensure that the sand is at a consistent depth in the playing area, 150 mm consolidated is a rough guide, and that as much as possible each bunker plays like another. Rake slowly, concentrating on smoothing out any ruts, avoid contamination from soil or grass and before leaving the bunker check there are no leaves, stones, litter or weeds and be aware of the rule concerning "loose impediments". Ensure each bunker has a rake for the golfer positioned as per instruction. If you haven't got enough rakes you've got too many bunkers.

If you are interested in developing your career at an early stage as an apprentice you can demonstrate the ability to take responsibility by involving yourself in ensuring high standards are met everyday. Think about how the job can be made more time efficient, can the equipment be improved, is the sand of the right grade, how can re-occurring problems such as leaves, poor etiquette be resolved?

Once you are in the habit of seeing every task from tee to green indistinguishable from any other, and deserving of your full attention, then through teamwork and attention to detail a good golf course can be elevated into a great golfing experience.



Ian faces up to the biggest bunker challenge in golf - Hell Bunker on The Old Course

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Cultural practices and their effects upon turf grass growth and stress tolerance

Nowadays, greenkeepers are under increasing pressure to provide near-perfect playing conditions right throughout the year. Today's golfers have come to expect playing conditions, that only a few years ago seemed impossible. The demands of the modern game of golf have resulted in stressed turfgrass plants - with reduced leaf area, limited photosynthetic capacity and increased susceptibility to disease infestation.

*Continue
to learn*



Tim Butler outside Michigan State University

Greenkeepers are continually evolving to meet these demands and using every technique and practice at their disposal to meet the fast-changing needs of the modern golfer. However, have you as greenkeepers ever seriously thought about what is happening within the plant itself, or below your feet in the rootzone as you implement the many cultural practices that have become an integral part of every golf course's day-to-day schedule?

Mowing, fertilisation and irrigation, are probably the main turfgrass operations needed to sustain turfgrass quality. These practices are interdependent on each other, for instance, a change in mowing height or frequency will require changes in the irrigation and fertilisation programme used. It is easy to simply look at each cultural management technique separately and forget that how you manage any specific practice, will ultimately affect all other aspects of your specific cultural programme, whether obvious or not.

Of all cultural practices used in turfgrass management, I believe that mowing has the greatest effect on plant growth, development and stress tolerance.

Golf greens are an extreme example of a stressed setting. It is easy to forget the impact of low mowing heights on the turfgrass sward's ability to make carbohydrates, which provide energy and raw materials for metabolic processes within the plant. Grasses grow by cell division and thus the oldest part of a leaf is its tip and the youngest its base. The practice of mowing removes the mature part of leaves, which are active photosynthetic tissues and give the main contribution to the energy needs of the plant. The photosynthetic process comprises the use of energy, carbon dioxide and water by the plants - used to make carbohydrates, which the plant then uses for food. In combination with fertilisation, photosynthesis provides the plant with the raw materials for new growth.

At higher mowing heights, the plant is able to store the carbohydrates as reserves, to use if under stress. However, at low mowing heights the plant is unable to store these carbohydrates because of the continuous

removal of the carbohydrates produced. Photosynthetic rate is also reduced under low mowing regimes, because plant cells that contain chlorophyll are removed and consequently stomata number which are used to allow CO₂ to enter the plant are reduced. To try and compensate for the reduction in reduced leaf area experienced under low mowing heights, plant leaf chlorophyll content increases. Chlorophyll molecules secure the sun's energy, and thus the plant tries to save more energy, since its leaf area is reduced.

Another turfgrass response to low mowing heights is reduced rooting depth, because carbohydrates are used in root production. Shoot density increases, at the expense of root density as mowing height decreases, although tillering number is increased.

The turfgrass stand's ability to tolerate biotic and abiotic stresses will ultimately be affected by this limited root system, with a weaker grass plant as the final outcome. The problem is compounded by the use of inert sand-based mediums as on many golf greens, which have limited amounts of soil organic matter and poor water holding capacity. Coupled with this, there is potential for leaching of applied nutrients and pesticides as a consequence of the reduced root mass. Shoot water content (succulence) increases at lower mowing heights. Shoot succulence decreases cell wall thickness, which makes the turfgrass plant more susceptible to environmental stresses and diseases.

Fertilisation is the practice of supplying essential plant nutrients as part of the turfgrass management strategy. Correct nutrition is essential for the plant to maintain high quality and to carry out physiological processes. Fertiliser's represent an invaluable chemical tool, without which, turfgrass management would be very difficult. Nitrogen, phosphorus, and potassium are the main macronutrients that greenkeepers are confronted with on a frequent basis. These nutrients are required by the plant for growth and function.



The effects of a low height of cut

By Tim Butler

Nitrogen is the mineral required in greatest quantities by the turfgrass plant. Nitrogen is required for tissue growth, good turf colour and wear tolerance. However, the concept that it's better to apply more than less - as applies to N application - may not be beneficial. It is well known that excessive nitrogen concentrations can create succulent tissue, reduce carbohydrate reserves, resulting from increased shoot growth, reduce rooting and reduce wear tolerance of the turfgrass sward. Thus excessive N applications weaken the turfgrass sward, making it more susceptible to disease and reducing stress tolerance.

Phosphorus is important to turfgrass because it enables energy transfer within the plant, which is required for growth. Phosphorus is of particular importance at the turfgrass establishment stage, since it promotes root development.

Potassium is vitally important for photosynthesis, and also regulates water uptake in the plant system. It is also of great consequence in increasing wear tolerance and plant resistance to environmental stresses.

Water is a major growth-limiting factor of all turfgrasses. Grass plants require adequate water to maintain quality. The question of frequent, light irrigation versus infrequent, deep irrigation is still unanswered, with theories suggesting that infrequent, heavy irrigation, helps to increase root mass and plant stress resistance.

The ability of a turfgrass plant to uptake applied water, is ultimately affected by the length and density of its root system, with extensively rooted grass plants having greater access to a larger rootzone volume. Field capacity type irrigation management, where irrigation is applied before any signs of wilt are visible, is a highly effective method of irrigation. This system reduces problems such as localized dry spot, and salt build-up in the rootzone.

However, there is a fine line between applying enough water to satisfy the plant's needs and over-watering the rootzone. Over-watering leads to a reduction in root growth because the roots are basically sitting in a highly saturated soil on a regular basis. Over watering can also cause leaching of applied fertilisers and pesticides, a reduction in air-filled porosity, an increase in soil organic matter and thatch and a weaker grass sward.

The hardest part of irrigation is balancing the needs of the plant with the amount of water that is lost through drainage and transpiration. Transpiration is the process where water is lost from the grass leaf into the atmosphere as water vapour, through small openings on the leaf surface called stomata. The combination of transpiration with evaporation - which is the loss of water from the soil surface - is known as evapotranspiration.

Soil cultivation has become an integral component of management programmes on almost every type of turfgrass system. Cultivation practices are principally designed to reduce soil compaction and thatch build-up.

The main types of cultivation used include: coring; solid tining; water injection and vertical mowing. Coring, solid tining and water injection, are principally used to improve soil physical properties, such as air filled porosity, bulk density and drainage rate. These practices are often followed by top dressing. By improving the physical properties of the rootzone, turfgrass growth should also be increased. This type of cultivation basically breaks up the rootzone, which makes it easier for the turfgrass root system to penetrate into the underlying soil, helping to create a more expansive root mass, hence increasing the plant's stress tolerance levels.

Vertical mowing can be used to prevent grainy grass swards, to reduce thatch and organic matter accumulation and to reduce compaction. Grainy

refers to horizontal growth of grass leaves and stems, which will negatively impact ball roll. Organic matter increases water-holding capacity of the rootzone, and reduces water infiltration rates, which can lead to a moist playing surface and shallow rooting. This increased shallow rooting may reduce turfgrass wear tolerance, playability and stress tolerance.

Plant growth regulators are used as often as weekly, by many turfgrass managers, and are very important in turfgrass management, particularly under shaded conditions. Shade effects are a problem for nearly every turfgrass manager, be it shade due to buildings or trees. Shade alters the microclimate, including increasing the relative humidity, decreasing air movement and reducing temperature. Shade affects light quality, quantity and duration. Morphological and physiological changes that occur to plants grown under shade include:

- Shoot elongation
- Thinner leaves
- Reduced tiller numbers
- Reduced shoot density
- Reduced respiration and transpiration
- Reduced photosynthetic rate
- Increased chlorophyll content
- More upright growth habit

Plant growth regulators such as paclobutrazol and trinexapac-ethyl reduce cell elongation. Cell elongation is one of the main problems caused by shade. Under shaded conditions, the shorter light wavelengths are blocked and the longer light wavelengths reach the plant. The longer wavelengths cause the long spindly growth, which you as greenkeepers have seen far too often. Thus the plant growth regulators are a means of reducing this long weak grass growth. Plant growth regulators have also been found to increase plant tillering, density and rooting.

Many challenges face the greenkeeper of today. The science of turfgrass is continuously evolving and bringing with it new concepts and technologies that are aimed towards providing the perfect putting green. As a greenkeeper, every single management strategy employed will eventually impact on the turfgrass performance. Understanding the implications of each practice is a step further to achieving that perfect-playing surface.

Tim Butler is carrying out research in the area of turfgrass nutrition for a doctorate degree at both University College Dublin, Ireland, and Michigan State University, USA.



An aerator carrying out hollow tining

Course Feature

In at the Deep End

Scott MacCallum meets Craig Gilholm, a man who likes to hit the ground running.



It's natural for people starting a new job to ease themselves in. Take some time to get to know your new colleagues; learn where the coffee machine is; who to turn to if the printer is chewing up your work and what to do with yourself at lunchtimes. After a little while, you can then start to display all the reasons why you were chosen for the job in the first place - bright ideas, problem solving, volunteering for tasks etc.

Spare a thought then for Craig Gilholm. Craig started his new Links Manager's job, a year ago and, as you all know, the first year in such a position is very much a learning process. Not only does all the usual "new job" stuff apply, but you've got to learn how your new course reacts to whatever weather and playing conditions are thrown at it at each and every time of the year.

Except that in Craig's case, all through that first year, in the back of his mind has been a date. That date is Thursday, July 20th when the world's best golfers tee it up for the first round of The Open Championship. Craig, you see, is the new Links Manager of The Royal Liverpool Golf Club - better known as Hoylake - having succeeded the late, well loved, and even more respected, Derek Green.

Talking with Craig, however, you would never believe such a huge Championship is just around the corner as he is blessed with a similar phlegmatic character to that of his previous boss, Colin Irvine, at Muirfield.

That laid back approach, coupled with an in-built confidence that he possesses all the skills necessary to handle whatever is thrown at him, are a real blessing for the 33 year-old, who has been brought up immersed in all the finest traditions of links greenkeeping.

"In all honesty until very recently I hadn't even given The Open a thought. It will take care of itself when it comes around," said Craig, as we sat in his room at the rear of the maintenance facility.

"That might seem silly, but this being my first Open in charge I haven't experienced any of the worries which might come along. R&A Chief Executive, Peter Dawson, and Championship Chairman, Martin Kippax, visited recently and asked me what I thought the course was going to be like and I just said 'fine' as I didn't see a problem."

By way of an explanation for such a calm approach Craig points to his 16 years at Muirfield, the last eight as Deputy.

"All I'm trying to do is keep everyone in the club happy and do what I've been taught at Muirfield - present the course the way Muirfield is presented



week in, week out. I know greenkeepers will all say that they present their courses to a high standard within reason, but at Muirfield, where admittedly it was easier because of the limited play, we had to produce a course out of the top drawer every single week.

"So really, I've not thought about The Open and I've certainly not panicked every morning about jobs which need doing. Not yet anyway."

The opportunity for Craig to face his first Open Championship as Links Manager, began when he spotted the advert for the post in the March 2005 issue of Greenkeeper International.

"My thoughts were that I'd have to apply as I was ready for a step up. I did think though, that with The Open coming up a lot of the big guns in greenkeeping would be in for it so I thought I had no chance of the job but that, coming from Muirfield, I expected at least to get an interview. I had Open experience but there are probably 40 or 50 guys in Britain who also have Open experience."

Sure enough the call to interview came with Alistair Beggs, of the STRI, a Hoylake member, on the panel and the man charged with asking the technical questions.

"I felt everything went well, thinking that, as a second in command, I'd done all I could, and left it at that but then they called back and said they wanted me for a second interview. It was getting serious now I thought."

Craig was accompanied by his wife and family on both occasions, to give them a chance to get to know the area but he still felt that he would be the outsider of probably three or four guys.

"But after the second interview they called back and said the job was mine. It took me about two minutes to accept!"

Hoylake had been synonymous with the work of Derek Green, who had been Links Manager for over 20 years and whose ambition had been to bring The Open back to a course which hadn't played host since 1967. It was therefore a sweet occasion when, on the strength of much of the revamping work he had carried out on the course, five years ago the 2006 date



was given to the club, and a bitter one when illness overcame and eventually took him early last year.

"I never met Derek, nor did I know of him, but having seen the job he's done here he must have been a hell of a greenkeeper. I read about the work he had done in a Greenkeeper International article done when The Open was announced and from that and what I've heard about the golf course, there has been a transformation and it is a real credit to him that he got The Open."

That said, Craig will always do things his way, based on the skills and knowledge he picked up from that other magnificent Open venue on the east coast of Scotland.

"I think we all do things differently whether it be the way we turf, or the way we build bunkers. For example, I cut round the tops of fairway bunkers a lot closer and make the landing areas bigger whereas before they were semi rough. I've tried to do other things differently as well including hand cutting the tees for wear purposes although you've got to be prepared to adapt if we're too busy. We're also hand cutting greens, and will be right up until The Open, but that's purely for hydraulic leak purposes. I'd love to go out and triple cut the greens every day at the moment but we have got a lot of work to do so it's not possible," said Craig, who also has a new North Staffs Irrigation system installed over the last five years at his disposal.

One of the practices he has been more than delighted to see that Derek had brought in, was the maintenance hours that are in place on Mondays and Fridays and which give a bit of breathing space on a course which is much busier than his old place of work.

That is one of the principle differences between Muirfield and Hoylake and it has been a steep learning curve for the new Head man.

"Every month so far has been the first full month I've experienced - first May, first full June, first winter etc and I think I've learned more in the 10-11 months I've been here than in the last 10 years at Muirfield," said Craig, who started off as a YTS at Harburn GC, in West Calder, where he was a junior member playing to around 10.

"Things happen here that don't happen at Muirfield. We never got Fusarium at Muirfield - perhaps twice in 16 years - because we had high fescue content greens. We never treated for Red Thread and never used fungicides and I think Colin (Irvine) would still say that. We never used things like worm suppressants and all are used here for presentation purposes," said Craig, who was taken on at Muirfield by Chris Whittle, now Head man at Royal Birkdale.

"I found it really strange that he was calling me for advice for a change."

On the subject of sustainability Craig, comes from the pragmatic school and believes that Derek was of the same opinion.

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2. The Tour Suit, which comes in either a Weatherbeater or Full Zipper style (pictured), has a waterproof outer fabric, which is fully lined. The Weatherbeater jacket is a short zipped pullover style with two pockets and has an adjustable draw cord waist. It also contains zip off half sleeves. The trousers come with a three pocket styling. The Full Zipper version comes with a full length covered zipper on the jacket and the trousers have velcro adjustable bottoms. Jacket size ranges from S - XXL and the trousers come in 27", 29", 31" & 33". The suits come in a choice of colours. £130

3. This does exactly what it says on the tin. The Four Seasons Breaker is just that, perfect to wear all year round. This item is a multi option pullover style top with a short zip and elasticated draw cord. This breaker zips off in two places to create three different garments, full sleeve, 1/2 sleeve or a sleeveless top. Available in a multitude of colours and sizes. £26



4. When it blows, it really does blow and the Windbreaker ensures that you don't feel any of the resulting chill. This stylish top features a soft Teflon coated microfibre outer coat and is a pullover style, with high v-neck and two side pockets. It comes in navy, black or charcoal. Sizes S - XXL. £25



5&6. This top, which is Teflon coated and contains a soft waterproof breathable lining system, comes in two different styles. The Sport Weatherbeater (5) has an adjustable draw cord and is a short zipped pullover style. The Sports Jacket (6) is a blouson style with a full covered zip. Both come in a variety of colours and sizes are available from S - XXL. £42

7. The Reversible Waistcoat has two pockets both sides, is fully reversible and has an adjustable elasticised draw cord. Teflon coated, this top comes in black and grey or navy and stone (as pictured), with sizes ranging from M - XXL. £22.50

8 The Gear Crew Neck Fleece is ideal for work and play, is fashionable and practical. Available in S, M and L. Colours red, navy and grey. £22

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10. These smart, yet tough, polo shirts are made with a fabric that actively pulls moisture away from the skin by rapid evaporation. The Dry Gear shirt is just £16 and is available in white, with either blue, green or red collar trim. The Nailshead polo shirt is moderately priced at £19.50.



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"We've got Bent but quite a bit of Annual Meadow Grass as well. We're on the west side of the country and do get quite a bit of rain so we live with it. To me sustainability is having greens 12 months of the year regardless of what's in them, while at the same time we are trying to add more Fescue into the greens. We overseeded last year for the first time and did it again recently with fescue bent.

"The club wants to push forward with sustainability but they have a sustainable golf course anyway. There is no one day of the year when it's closed apart from snow and that is unusual for this area and England in general."

Much of that is down to the remarkable draining capability of the course.

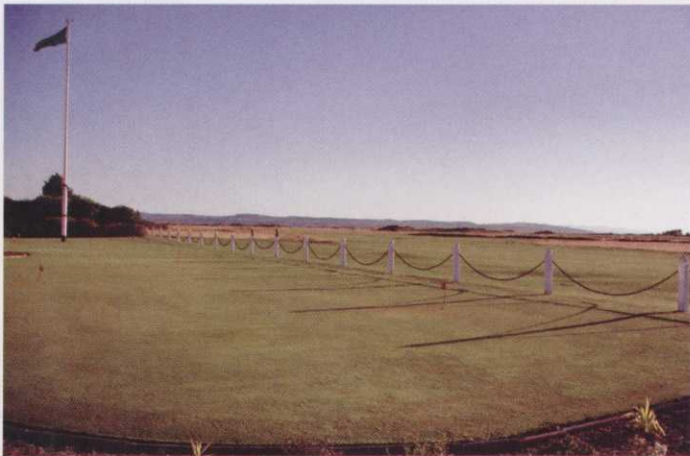
"We are on pretty much pure sand. We have three or four inches on sandy soil and then pure sand forever. People might think that their course drains well but this place is something else. We had three or four hours of rain recently and I went out straight afterwards and the greens were absolutely rock hard solid."

The course the 156 top players will face later this month, will be markedly different from the one Robert de Vicenzo mastered to become the only Argentinean Open Champion in 1967 with three new greens and a changed order of holes.

Donald Steel was brought in to make alterations to the course for playability and health and safety reasons with some of the holes - particularly the 17th - too close to a main road while that new 17th will play as the Championship's opening hole - the new 18th the 2nd and the Championship's 3rd will be the regular members' 1st.

"It is a very progressive club and never reluctant to make changes if they feel they are going to improve things. Once The Open has been and gone they will look at how the course played and decide what they should





do next. They might say let's dig up another three greens," he laughed.

"Birkdale is the same, they are more than happy to make changes but it doesn't happen in the same way at the old established courses in Scotland, other than to make them longer."

Asked about what he is most worried, Craig is the same as most other head men on the eve of a big event.

"I want to make sure that my greens are true because I've inherited greens which are different to those I've been brought up on and I'm not sure yet how they work 12 months of the year. At the end of the day you can have a worn bit on your fairway but if no-one lands on it no-one will know, while you can have thick rough, thin rough, patchy rough but what you will get criticised for is your greens, regardless of what the competition is.

"I'm not worried about vandalism, although the course is in a built up area, as it is out of my hands and we'll cope with that that brings if it happens."

Having arrived at Hoylake a year before The Open Championship, Craig is well aware of the mountain of work that had already been done by his 10 man team.

"Derek's illness was extremely traumatic for the team but credit to the boys, they have been working flat out for five, 10 years in total waiting for this day to come. Derek was of the view that they did reconstruction work as an in-house team, whereas I like to bring in contractors, so they really have put in a power of work and deserve a lot of credit for that."

As for the new kid on the block, he is taking it all in his stride and looking forward to the biggest week of his life.

"It will be the pinnacle of my career but really, getting this job, and the chance to be the head man at a top links course, was the pinnacle of my career."

Photographs courtesy of Alan Birch



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A compact 360 excavator is not the sort of item that will earn its keep on a typical course, but it shows that no mowing or clearance task is beyond mechanical control. The pictured unit provides a safe and effective solution to a problem area, in this case leaving it cleared for tree planting.



Make Life Easier for Yourself

James de Havilland takes the strain of dealing with those difficult to maintain areas around the course

Mowing difficult areas is one of those subjects that most will tend not to worry about, with more pressing tasks in mind. But taking a fresh look at kit to do the job could save time and money.

Difficult to mow areas will, of course, include around trees and shrubs plus banks and physically difficult to access areas. Of growing importance, however, are 'conservation' areas, those parts of a course that are deliberately allowed to revert to their 'natural' state. Although there are those who may suggest these types of area do not need to be maintained, the reality can be rather different.

In many cases, conservation areas need careful management if desirable native plants are to thrive. Leave an area to its own devices, and the bullies of the plant world, such as docks, thistles and bramble, will quickly take over. Henshman that can include couch and other grass thugs, are also keen to strangle out sweet vernal and fescue, the latter tending to thrive in nature where the sward is lightly grazed.

In other words, even conservation areas may need the odd mow, careful planning allowing this to be done typically when desirable plants have had a chance to set seed and invaders, such as docks, are cut down before they have a chance to spread. Spot treatment of new 'weed' growth with herbicide, such as glyphosate, may well be a good idea for the long term protection of the site, but this may not be permissible in all cases.

The trick is finding kit to mow all the difficult areas common on a modern golf course. Putting someone to work with a brushcutter will certainly enable a great deal of awkward mowing to be done, but this task

is neither popular nor productive over a wide area. Two-wheel tractors, to which a range of mowing attachments can be fitted, remain a good choice. Typically offered with a choice of rotary, flail or reciprocating knife cutter bar, these versatile power units can also drive other attachments, further boosting their productivity.

A dedicated power scythe with a heavy duty cutter bar is essentially similar to a two-wheel tractor but developed to typically enable it to operate on steep sidling ground. Changes can include fitting dual wheels to assist lateral traction and a power unit that will not be starved of lubricant when working at an extreme angle.

For most golf courses, a two-wheel tractor and cutter bar combination will have obvious appeal, the power unit having the ability to drive other equipment that can include a cultivator or rotary brush. Cutter bars do have limitations. Ideally suited to longer grass and upright vegetation, cutter bars are less than ideal when it comes to dealing with matted material, uneven ground and heavier vegetation.

An alternative could be a flail mower attachment for the same power unit. Pro-rata, a flail will take more power to drive than a cutter bar, so its working width may be reduced, but it will leave a mulched finish. This can be useful when dealing with large volumes of cut material that includes docks, thistles and other bulky materials.

Make Life Easier For Yourself

A rotary mower attachment is a good compromise between a flail and cutter bar. Simple and easy to maintain, a heavy-duty unit should be able to tackle areas that only receive a periodic mow, including areas that will typically be only cut in late summer. It may be worth looking into the costs of hiring this type of machine. Although modern two-wheel tractor designs are easier to operate than they used to be, some find them hard work.

It is here where a ride-on 'brush cutter' could come into play. Typically featuring hydrostatic drive and a mid-mount rotary deck, these machines have a petrol engine of at least 12hp and a cutting width that will be nudging 1.0m. The deck of these machines is designed to tackle heavy material, hence the term brushcutter, but they will also cope with grass. Of equal importance, they have a low centre of gravity that enables them to work safely across slopes of up to about 30 degrees.

A tractor mounted power arm and flail combination is another versatile option, particularly if the same flail head is used to keep hedges in trim. This type of equipment is not used as widely in golf as it is the amenity sector, the risk of leaks from the hydraulics having long been a concern for some. Modern units, however, are easier to both operate and mount than some earlier designs, with improved hydraulic couplers helping cut the risk of leaks. Small power arms fit compact tractors in the sub-20hp class, with prices starting at around £5,000.

Such is the dominance of ride-on equipment on a modern course, it follows that zero turn, out-front rotary and small mid-mount mowers are far more likely to be at the top of the shopping list for much of this type of work. A large pedestrian clearance mower is still worth considering, these machines having a light footprint and possibly less risk assessment issues when working on banks. It is well worth taking a look at what is on offer. Current models are far more operator friendly than the designs of even a decade ago.



Ride-on brushcutters mix tough mowing ability with ease of operation and high productivity. As a guide, an Etesia Attila is offered in 0.85 and 0.95m versions with hydrostatic drive and chevron pattern tyres. Prices from just under £5,000 to £6,500. Tools like this can be hired for around £100 a day or £400 a week.



Nothing wrong with a brushcutter, but productivity over a large area is compromised and the job can be tedious and tiring, particularly in hot weather. A good harness and gloves will help reduce fatigue and vibration reaching the operator. A complete professional kit will not leave much change out of £450 to £500.



No, a heavy duty 3.0m flail scrub cutter and JCB Fastrac combination will not be at the top of the shopping list for most courses, but kit like this will make short work of areas that need clearing. It can be more cost effective to bring in a contractor to tame a really overgrown area than tackle it in-house.



The Tracmaster Bank Commander is essentially a two-wheel tractor fitted with dual wheels and a 13hp Kohler petrol engine that can work at extreme angles without suffering oil starvation. A choice of attachments is offered, including a 1.35m cutter bar and 0.76m rotary deck. A ready to mow unit will cost from around £3,600.

A large pedestrian clearance mower, such as the hydrostatic John Deere 717E, will offer a relatively wide cut, in this case 1.21m. Add a powerful 17hp power unit and operating rates can be impressive too. At perhaps two thirds the price of a zero turn, units like this are well worth a look.



When manoeuvrability counts, a zero turn delivers. There are now so many makes and models to choose from that it is possible to find an example to fit most needs and budgets. A petrol powered machine may cost a lot less than a diesel, but running costs will be higher. A high capacity diesel unit will carry a sticker price nudging £11,000 or more with collector.



A good compromise between a hand held and ride-on brushcutter is a pedestrian unit. Although the pictured 6hp Etesia Attila 51 looks like a rotary mower, it is fitted with an extra heavy-duty blade and deck to tackle scrub and long grass. Fitted with three forward and one reverse speed, the unit is around £1,600.

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Turning Japanese



Clubhouse Sawara

Laurence Pithie MG returns from his travels and provides an insight into managing golf courses in Japan.

During a recent visit to Japan I had the opportunity to spend some time in the company of two senior agronomists, which enabled me to visit a number of golf courses around Tokyo. Mike Heacock of Pacific Golf Management and Simon Doyle, representing Goldman Sachs's interest, gave me an insight into the golfing industry in Japan as well as a guided tour of several of their facilities.

The following article is an account of golf course management in a country known as Nippon or Nihon, which translates as 'the origin of the sun', the name originating from China many centuries ago.

Before discussing golf course management in Japan, it is well to have an understanding of this country and how this has an effect upon maintenance and development.

Japan consists of a group of numerous islands of the eastern coast of Asia, covering approximately 2,000 miles in length. The four main islands running from north to south are Hokkaido, Honshu, Shikoku & Kyushu. Okinawa is further south and much smaller in comparison. Honshu is by far the largest and most populated, being central to Japan. Because of its immense expanse, Japan lies within three climatic zones, cool temperate, temperate and sub tropical. It is also a land of volcanoes, around 60 of which are still active. Japan also sits above the so called 'ring of fire' being prone to earthquakes, the last catastrophe being at Kobe in 1995 where around 600 people died.

Although large in comparison to most European countries and with a population of about 128 million (more than double that of the UK), 80% of the land surface is mountainous. The remaining 20% of lower, level areas where virtually all the population exist, have to share this with agriculture, industry and commerce. As such, many of the cities along the eastern shores of Honshu almost roll into one another in a mass of urbanisation. Fields are measured in square yards, being very small in comparison to even those in northern Europe; hence the need for compact tractors.



Fairway bridge

Turning Japanese



Caddy, cart and magnetic track

Probably all of us are affected in some way by the ideas, culture and economy of Japan, yet it is a land of contradictions. Crowded cities yet low noise, high tech buildings and gadgets yet rural tranquillity. If we are not driving a Japanese car then we are almost certain to have some electrical items that are made in the far east. Japan is the most westernised country in Asia yet its values and beliefs were developed from a feudal system. This largely evaporated in the 20th century, especially after the end of World War 2.

The popularity of golf owes much to Japan's dynamic economy and today there are about 2,400 courses, the vast majority being of 18 holes. Driving ranges outnumber courses and driving in and around the outer Tokyo area, it is not uncommon to see ranges of only 100 m in length. These are crammed into urban spaces with extensive netting to protect surrounding areas, housing & businesses. Most have electrically operated sides, that allow the netting to be lowered when typhoons are present. Some also have vertical over-hangs, thereby even the most determined or errant shot never leaves the confines of the range. Some of the larger venues are triple decked with automated ball dispensers now fairly common. Balls are sold on an individual basis and costs vary depending upon location, but 50 will cost at least £2.50. The modern ranges have cool air blowers that are a welcome relief during the hot and humid summer when temperatures are constantly above 35 Celsius. For many avid golfers, ranges are often the only form of golf available due to the high costs of membership and the proximity of golf courses to Tokyo and Osaka for example.

Travelling around Japan can be a daunting exercise since both roads and streets have no names. Road maps are in scarce supply but fortunately many taxis and most new cars are fitted with satellite navigation, which in Japan is a virtual necessity. For visiting golf courses, it is nigh impossible to reach your destination without one and all



Stadium golf at Narita

are programmed in Japanese only! If you can't speak or read Japanese then an interpreter come guide is a must.

Although golf has been played in Japan for most of the 20th century, it is only since the dramatic rise in economic growth of the 1960's that golf development began. Prior to 1960 there were only 300 courses. The main surge in construction took place during the 1980's before coming to an abrupt halt around 1992 when the bubble burst and the economy went into free-fall. Following the collapse of the real estate market, the Tokyo Stock Exchange lost 75% of its value in 18 months. Prior to that point in time, golf club membership was exclusive and seen as an investment as well as a means of doing business with other like-minded colleagues. This also fuelled speculation, which drove prices up even higher. Paying £100,000 for a membership was fairly common plus an annual subscription of well over £2,000 meant that only the wealthy could afford to play golf. Today, typical costs are around £7,500 for membership plus £150 subs. However, a green fee is still required and this costs around £30. A caddie, usually always a female, will cost another £15. A visitor or non-member will pay around £100 for green fee, so although considerably cheaper than over a decade ago, golf remains an expensive game in comparison to most of Europe. Approximately 30% of all play is membership with the remaining 70% being from visitors.

Many of the courses built during the last boom in construction were of American design and are generally of a high standard. However it is some of the clubhouses that have to be seen to be believed. Many are palatial in size with ornate décor including large sunken baths. Extensive and colourful landscaping was also the norm since the Japanese have a love of trees and shrubs, particularly the flowering variety. A couple of the courses I visited also had mini-sized stadiums sited high above the 18th green. This presumably for large numbers of fellow members to enter into raptures of applause for witnessing the winning putt being sunk.

UK golf in comparison, is relatively cheap and it is the availability and costs of suitable land that makes golf so expensive. The further up the mountain, the newer the course, which is not too dissimilar to Spain's east coast.

The financial collapse of many golf clubs was not just restricted to Japan. Many Japanese owned courses had to be sold off in order to recover part of the debt. Today, the banks own many of the clubs in Japan and it is they who are the main operators via golf management companies. In many instances, the debenture holders only recovered around 5% of their investment and some harsh lessons were learned on economic sustainability. The last word carrying a certain 'ring' in today's economic and environmental climate.

As other countries in the Far East such as Korea start to develop destination resort courses, the experiences in Japan have been noted but it still appears to be ego-driven by wealthy individuals. In the coming years, it will be interesting to see if countries far nearer to home such as Ireland, Spain & Dubai will suffer a golfing recession as developments there continue unabated and are becoming more dependant on selling properties, often at an inflated price. The question of available water is also one for future concern although probably not in Ireland.

Next month's article will look into the various challenges and standards of managing golf courses in Japan.



DROUGHT

A Special Report

Water supplies are drying up across the country and millions of us face a summer of water rationing. With predictions of the worst drought in a century and orders being imposed in England and Wales, hopepipes and sprinklers have been banned in many areas. As our lush courses begin to turn yellow, Melissa Toombs, delves into the affects of the drought and asks, what steps can be taken to prevent our courses from drying out?



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What is a Drought Order?

Drought orders apply only to water providers. An order from the Environment Agency, means a water board can restrict their output to conserve reservoir stocks. It also means, they can ban local authorities from watering parks, gardens, golf courses, cricket pitches and other sporting venues. It makes no difference to what consumers are allowed to do when an area has a hosepipe ban.

Water Woes

More than 13 million people in London and south east England are already under a residential ban on using hoses or sprinklers to wash cars or water lawns. South east England will be the worst hit by the drought, but the south west, Midlands and Wales are vulnerable too.

Although there has been a lot of rain over the past few weeks, that won't make a significant difference to the drought. The Met Office say it's the winter rains that are needed to replenish the water aquifers and the last two have been dry. Winter rain allows water supplies to recharge. Rain in December seeps into the ground, but rainfall in spring and summer tends to evaporate or be sucked up by trees, plants and flowers.

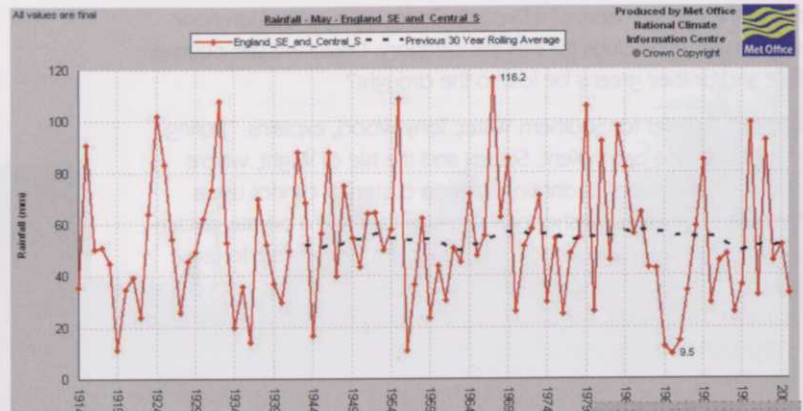
Parts of southern England have had the two driest consecutive winters since 1920-22.

Figures released by the Met Office show that south east and central southern England have had:

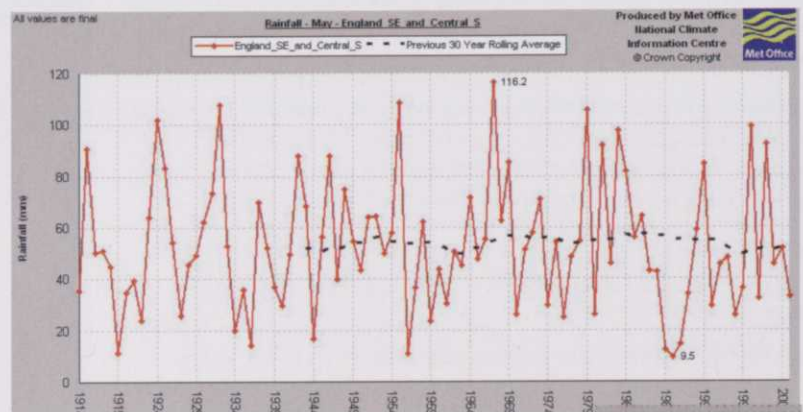
- The driest November 2004 to January 2006 in over 80 years, with just 724mm of rain;
- November 2004 to January 2006 was the second driest 15 month period on record;
- 13 of the last 15 months have recorded below the 1961-1990 long-term average, having only 72% of the average, which is 1001mm.

May rainfall figures (up to May 22)

- UK 83.4mm, 26% for this period in the month but not record-breaking - the wettest May was 1967 with 128mm.
- South east and central southern England (where the main issue is) 68.6mm, 31% above average.



May rainfall for south east and central southern England since 1914
© Crown copyright 2006, Published by the Met Office



Annual rainfall for south east and central southern England since 1914
© Crown copyright 2006, Published by the Met Office

For comparison -

THE WORLD'S DRIEST PLACES

Place	Location	Rainfall in Millimetres/Inches	
Dry Valleys	Antarctica	None in 2000 yrs	
Death Valley	California, USA	3.0	0.1
Arica Desert	Chile	3.0	0.1
Gobi Desert	Central Asia	5.0	0.2
Sahara Desert	(parts of) North Africa	25.0	1.0
Lake Eyre Basin	Australia	101 to 152	4.0 to 6.0

AND SOME OF THE WETTEST

Mount Waialeale	Hawaii	12,344	486
Cherrapunji	India	10,874	428
Mount Cameroon	Cameroon	10,160	400
Sprinkling Tarn	Cumbria, England	6,528	257
North-west Washington State	USA	2,997	118

Prospects for rainfall across the UK through the summer months is uncertain, however, it is likely that rainfall will be sufficient to alleviate the water shortages affecting some regions.

What the water companies have to say -

One of the requirements of a Drought Order is a total ban on non-essential use - golf clubs fall into this category. Could we see courses close and/or their greens be lost to the drought?

Customer Adviser for Southern Water, Tony Wood, explains: "During the full hosepipe ban in Kent, Sussex and the Isle of Wight, where Southern Water supplies drinking water, a customer cannot use a hosepipe, a pressure washer or a sprinkler, to water a private garden or wash a private motor vehicle. However, it is permissible to use a watering can or bucket to perform these activities; to use a hosepipe to transfer used water from a bath or sink, or to transfer rainwater from a water butt.

"Southern Water applied for a drought order from DEFRA on March 20, to enable us to ban non-essential water use. This application was approved by DEFRA on May 25. However, due to average rainfall in April, and above average rainfall in May, Southern Water shall not be implementing any further water restrictions at this time, but will closely monitor the situation.

"However, if further restrictions are required, these may affect all natural or artificial surfaces used for sport and recreation (including golf courses). A possible restriction on the watering of golf courses may be to reduce the period watering can occur (eg 19:00 - 07:00).

Golf courses with their own water supply are not affected by the hosepipe ban or by any future water restrictions implemented from the non-essential use order.

Anyone flouting drought orders can face a fine of up to £5,000 in magistrates courts or an unlimited fine in the Crown Court. Seven water companies, all in the south east - where shortages are most severe - already have hosepipe bans.

Sutton and East Surrey Water have also been granted a Drought Order by DEFRA. Their non-essential use ban came into effect on May 27, prohibiting sprinkler and hosepipe use for the watering of golf courses and other sports grounds.

At present, the drought problem appears to remain in south east England. However, most of England and Wales has had a dry winter and only northern England has approached average rainfall.

The drought is starting to affect Norfolk and Suffolk, with low groundwater levels and low river flows. Water companies in the east of England are monitoring the situation and preparing to take further steps, to manage supply and demand if the drought intensifies.

With hot, dry weather the drought will spread into other areas. The east of England and the south Midlands are most vulnerable, but reservoir levels in Wales and the south west, could also drop quickly this summer. Northern England is at no higher risk from drought than normal.

Yorkshire Water say there is no water shortage in Yorkshire and their reservoirs are very healthy for this time of year. They are not planning any usage restrictions this year.

Scottish Water say there are no concerns about water levels in Scotland and no plans for water measures. They are currently experiencing between 95 to 100% capacity at their reservoirs. Geoff



Apex Bewl reservoir, in Sussex, remains 85% full, which is low for this time of year

Aitkenhead, Scottish Water's Asset Management Director, told me: "There is currently no issue in Scotland with regard to water levels in our reservoirs. Water stocks are at acceptable levels and are of no current concern for Scottish Water. But this does not allow us to become complacent as water users. Water is a valuable resource and it is still advisable to use water wisely and conserve stocks whenever possible throughout the year."

Northern Ireland Water Service have no water shortage and are not planning any restrictions.

Thames Water, who introduced a hosepipe ban in April and supply to 14.5 million customers in the UK, applied for a Drought Order on June 13. Should this go ahead, it could threaten some of this year's major sporting events such as the cricket test between England and Pakistan at the Oval, in August. Thames Water lose 201 million gallons of water through leaks every day, this is enough to fill 366 Olympic swimming pools.



Orpington Pond in Kent

What the Environment Agency has to say -

The Environment Agency is responsible for protecting the environment by minimising the impact of drought, while ensuring there is enough water for people. The agency ensures that water companies have effective plans in place to maintain public water supplies during a drought, without damaging the environment.

Stuart Sampson, Drought Coordinator for the Environment Agency, told me: "Golf courses need to contact their local water company to find out if restrictions apply (if water is being taken from the public water supply). Or, at the moment there are no formal abstraction restrictions in place (eg if you are using an abstractor licensed to take water from the environment)."

Stuart gave this advice for greenkeepers:

- Is irrigation confined only to crucial areas of play? Set water priority areas to identify those requiring little or no supplementary irrigation i.e. water greens but not fairways and certainly not roughs!
- Introduce regular checking and repair system for leaks, faulty sprinkler heads etc.
- Choose irrigation times carefully; for example avoid irrigating in windy conditions and during daytime.

- Consider harvesting rainwater from car parks/ buildings for watering plants.
- Check for and mend dripping taps and water leaks.
- Use drought-tolerant plants and mulch in landscaping areas.
- Grass is very hardy and even if it turns brown it will recover quickly when the rain arrives. Also consider drought tolerant grass varieties for playing areas/course.
- Consider stopping vehicle washing.

Greenkeepers wishing to take more than 20 cubic metres of water a day from an underground source, for example a borehole or well, or from a river or stream, need to obtain an abstraction licence from the Environment Agency. Stuart Sampson said: "There are no abstraction restrictions in place. Most abstraction licences have conditions that will mean the abstractor must stop taking water once a certain level or flow has been reached. - this is to protect the environment. The abstractor should be aware of the conditions."

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MJ Abbott

Tough Curbs on Water Use

In the wake of drought orders, leading contractor MJ Abbott has noticed clubs are deferring spending on bunker re-modelling projects.

"Clubs are realizing it is vital to look at collection and storage of water instead," says Nigel Wyatt, Contracts Director.

"This has been marked in the last couple of months."

Time is of the essence and clubs need to be looking at addressing this issue now, as there are planning implications which need to be overcome. The bidding process too takes time.

Another important aspect is for clubs to know how much water they are applying to their course, as the authorities will want to know this.

"Considering ecological and aesthetic issues, we have been involved in creating water storage facilities at clubs including The Belfry and The Celtic Manor Resort in Wales," he says.

"Now water storage is on most clubs' agenda."

Contact MJ Abbott on 01722 716361, fax: 01722 716828

or e-mail: nigel.wyatt@mjabott.co.uk

www.mjabott.co.uk

2iC Consultants

If your club is affected by the drought orders, you need to be looking at all your options.

Yes, a more efficient irrigation system will help, and you should be looking to audit what you do and how it could be improved. But beyond that, most clubs have access to unused water resources.

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The Drought Orders recently issued indicate that the water usage ban is expected to last for at least 6 months. Regular cleaning is vital for professional equipment maintenance, so don't be forced to compromise. We can install a system designed for you in no time, including civil construction of your new wash pad.

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Prime Irrigation

Making maximum use of all other sources of water that may be available could make the irrigation of a sports turf area partially or wholly independent of a local water supplier and possibly free from the prospect of hose pipe bans and water restrictions.

Harvesting water, that would otherwise be wasted, and storing it for use during dry periods could provide a significant contribution to the total water needs of any irrigation system.

Prime Irrigation, has many years experience designing and constructing water storage reservoirs, carrying out site surveys and assessments, investigations and negotiating with the authorities to maximise the amount of water available for unrestricted sports turf irrigation.

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What the R&A say -



The R&A is responsible for the running of the Amateur and Open Championships, and provide best practice guidance on all aspects of golf course management. What are their thoughts on the drought?

Steve Isaac, Assistant Director of Golf Course Management, R&A, said as far as facts and figures are concerned, then best practice suggests:

Golf should be played on firm and dry surfaces, so over watering is to be avoided.

Turfgrasses can withstand a period of drought without the need for irrigation, i.e. sprinklers are not, generally, switched on at the first sign of dry weather. Some grass species are better than others in this regard.

During prolonged drought, irrigating golf turf should only compensate for evapotranspiration losses, i.e. around 30 mm a week. This equates to approximately 4 mm or 40 cubic metres of water per hectare a day.

The average golf course covers 60 hectares. The vast majority of courses in the UK only water their greens, green surrounds and teeing grounds, approximately four hectares. How much water is used to a 60-hectare field of crops?

Established and mature turf absorbs and retains moisture in its organic profile. Mature turf acts like an insulation blanket, reducing water loss to evaporation from the soil.

Golf course irrigation is, usually, carried out through the night when evapotranspiration losses are at their lowest and accuracy of coverage tends to be least affected by wind.

Irrigation systems should be designed and installed to apply water as efficiently as possible, thus minimising waste.

Automatic irrigation should be used merely to keep grass alive and to keep the soil to naturally receptive areas suitably moist. This minimises the risk of wastage through run-off.

Watering by hand is recommended to top-up areas that may shed water applied through the sprinkler system.

The combination of sprinkler use and hand watering minimises water wastage and produces consistent playing surfaces.

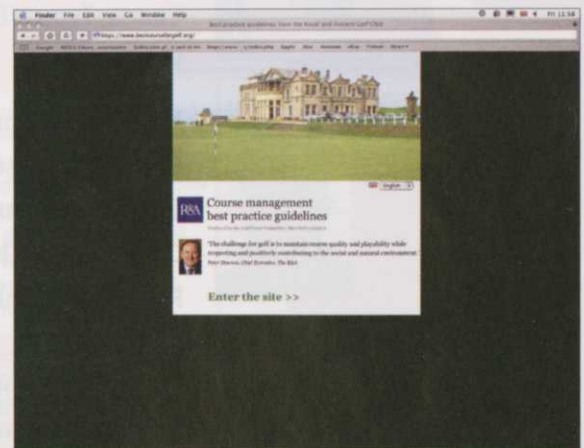
Maintenance practices such as aeration and use of wetting agents are employed to encourage deep rooting grasses and ensure penetration of any water applied, thus minimising the amount of water required.

Course Managers should routinely monitor the health of the turf and moisture content of the rootzone to ensure they only water when it is necessary. Weather stations are often employed to more accurately determine when irrigation is needed.

Properly constructed modern golf greens work on the principle of the perched water table, which retains moisture in the profile to minimise irrigation needs.

Globally, golf clubs and their Course Managers are well aware of their responsibility to use water as efficiently as they can and there are many examples of this in relation to turfgrass selection to minimise water consumption, or to facilitate the use of alternative sources, to potable supplies, the use of recycled or 'grey' water and the development of grasses and technologies that enable the use of sea water for irrigation purposes.

Further information on water management can be found on The R&A best practice website: www.bestcourseforgolf.org



TALKING HEADS

Compiled by Melissa Toombs

1

Are there drought orders in place in your area, or are there some threatened?

So what is going on in your Section? I spoke to British and International greenkeepers, in search of how/ or if the drought was affecting their golf courses.

DROUGHT



Name: Bernard Findlay
Position: Head Greenkeeper
Club: Portstewart GC
Course Type: links/parkland 54-hole course
Region: Northern Ireland

In Northern Ireland we have not shared the same severe drought conditions as southern parts of the UK but that is not to say that we do not get long periods of dry weather during the summer months. There are no drought orders in place or threatened at this time.



Name: Steve Evans
Position: Course Manager
Club: Yelverton GC
Course Type: 18-hole course
Region: Devon

There are no drought restriction orders in Devon at the moment although it has been well publicised that the situation could change if we don't get significant rainfall. (140mm last week!)



Name: Anthony Davies MG
Position: Course Manager
Club: Prestbury GC
Course Type: 18-hole course
Region: Cheshire

There are no drought orders in place in Cheshire and not likely to be.



Name: Iain Barr
Position: Course Manager
Club: Largs GC
Course Type: 18-hole parkland course
Region: Scotland

No, No, No, this is the west coast of Scotland. We are just short of 500mm of rain so far this year at the end of May and inland towards Glasgow gets a fair bit more than Largs.



Name: David Wood
Position: Course Manager
Club: Hever Castle GC
Course Type: 18-hole Kings and Queens course
Region: Kent

A drought order was put in place by our water company on May 27 and will last until at least November.



Name: Jonathon Scoones
Position: Course Manager
Club: Caversham Heath GC
Course Type: Championship & standard length heathland
Region: Berkshire

Thames water have applied for a drought order although our area (Thames valley) is not covered by it, because we have had slightly higher rainfall than London. If there is going to be one we will expect it by about August.



Name: Scott Young Liddle
Position: Course Manager
Club: Penna Longa Resort
Region: Portugal

So far there hasn't been any drought orders this summer, but last year in the Algarve and for the rest of the country there were drought orders.

2

What provision does your club take to ensure a regular water supply?

The DoE is currently developing proposals for new legislation, to introduce a system of licensing for water abstraction. However, there is currently no water abstraction licensing required in Northern Ireland. Consequently, we use three sources of water for irrigation: On course water feature (approx 6000m³) fed by land drainage and used as a last resort. Borehole and mains water. These water sources can be held in a 300m³ reservoir for use as required.

We have just installed a new 130,000 litre holding tank to replace the old one which only held 55,000 litres. This is fed by mains water although we are currently exploring the possibility of installing a borehole.

The club extract the irrigation requirements direct from a stream that runs through the course and have done so for the past 70 years.

Our Irrigation system is supplied from a pond. We have a Borehole to back up the pond if it can't sustain itself naturally.

Fortunately we abstract from a stream into lakes on the golf course. However we are limited to 18,000 m³ per annum for 27 holes. The abstraction licence has certain conditions attached preventing us from abstracting at certain times when river flow falls below a certain level downstream from us. We have not been allowed to abstract so far this year, so have to rely on water stored.

Our water is supplied by borehole. It goes down about 90m into chalk and we extract 22 m³/hr. We have irrigation to greens, tees, approaches and fairways, about 400 heads.

The water that irrigates the course is provided from a dam called Arade near Silves (nearly 40%) and the other 60% comes from wells. The water that comes from the second source is blended in because it is very high in salt content and we need to diminish it. We maintain our lakes for each course nearly full or half full, before we start pumping for each irrigation during night.

3

Have you changed the way you have utilised your water resources recently, in light of climate change talk?

No, at Portstewart, which is predominately links, I take a minimalist approach to irrigation. The aim being to keep the grass alive rather than lush, green and stripy, the results of such a policy are firm fast playing surfaces where fescues predominate.

Up until the spring of this year we used to water greens and tees with a tractor and bowser. Stage 1 of a new irrigation system was installed last summer (05) consisting of a 125mm ring main branching off to a valve box at the greens, a set of pumps and a holding tank. This will allow us to hand water the greens in a couple of hours as opposed to a couple of days with the old system. Automatic irrigation is in the pipeline (forgive the pun), but not for a fair few years yet.

I have not changed my view on water requirements in light of drought problems as I have always adopted the view of using water sparingly, more so to encourage deeper rooting.

SEPA are introducing Abstraction and Impoundment regulations in Scotland this year and I suppose it has got me to think more about water. Being a traditionalist with a minimal water view anyway and all the sustainable golf course hype, I will use it to assist me in further reducing my use of irrigation.

As we are limited to how much we can abstract we always water as efficiently as possible making 2006 no different from any other year. This includes a well maintained irrigation system, the use of wetting agents and aeration to improve root development. Hand watering is also very important. In fact this year we have not irrigated yet.

Yes. By using a more regular wetting agent application we have seen quite a reduction in irrigation to greens - almost half in fact.

These last summers in southern Portugal and in the whole of Portugal, have been demanding in terms of water consumption but we only apply the water volume that turf needs to grow or even less to replenish the water necessities of turf. Our fairways are Bermuda Tifgreen 328, so they don't need to be irrigated every day (in the summer, day in day out).

4

How would a significant reduction in water usage affect your course?

I feel we have the species in place to cope with periods of drought and we have irrigation for greens and tees only and none for the fairways. In 2002 we built an additional 9 holes to one of our courses. The greens were built to the USGA spec in terms of rootzone etc. The greens were originally sown out with bent and fescue, but suffered a take-all attack. I decided not to water and today these greens are 99.5% fescue and easier to maintain (at 6mm) than many of our older greens.

Not that much really. Yelverton is quite unique in the fact that we have never applied much water to the greens. This is purely down to actual time taken to fill the bowser, take it out to the greens, apply the water, bring the bowser back and fill up again - 4 hours to water 6 greens @ 600 litres per green.

There would be little difference to the course upkeep or condition if restrictions were enforced.

A significant reduction for us would probably mean only hand watering as we only use the sprinklers very occasionally. 9 years out of 10 that would be sufficient to service our course as I advocate minimal water, but the once in every 10 year drought we normally get would see the fairways burn up, but grass has a great power of recovery when the rain comes. It would probably have no long term effect.

The greens and tees are very prone to drying out so it could become a major problem. Our course management policies would have to adapt.

We are a 6 year old course, with very undulating (David Williams design) sand greens. Last year we lost irrigation for 3 weeks. In the end we lost about 30% cover to greens and tees. Luckily the fairways just about held on. I dread to think what will happen if/when this drought order is enforced it will have a massive effect on this course, and to our industry.

I think if we reduced the amount of water volume applied to the turf, fairways would become yellow and the board and members would start making complaints about the course because it was less green. They are not accustomed to fairways resembling those in United Kingdom and the board is demanding on having lush turf.

5

Are you starting to amend your long term thinking towards course management as a result of water becoming an ever more precious resource?

I consider myself very lucky to be greenkeeping in a part of the world where water shortage (to-date) is not a problem. However, I have experienced drought conditions and have been constantly amazed at the ability of fescue species to recover after prolonged drought. Maybe amendment to thinking should come through the expectations of the golfer - Who was it that said you don't play golf on colour?

The use of tried and tested wetting agents is very important at our club and we are constantly monitoring new products that are becoming available. There is also the constant battle to control poa coupled with a regular overseeding programme using bents and fescues. This has been part of our course management policy for some time now.

My only reaction to water shortage in the future is to increase further, aeration on the golf course. A deeper rooting system will find the necessary water supply needed to survive.

My long term thinking has always been the same in my 8 years at Largs. It is with the promotion of the finer grasses in particular Browntop Bent on our greens and this has involved less water each year as the root structure improves increasing sustainability and improving all year playability. I will take this approach as far as I can as long as I have the support of my club.

Winter storage of water and increased efficiency of the irrigation system, coupled with development of more drought resistant grass species has to be the way forward.

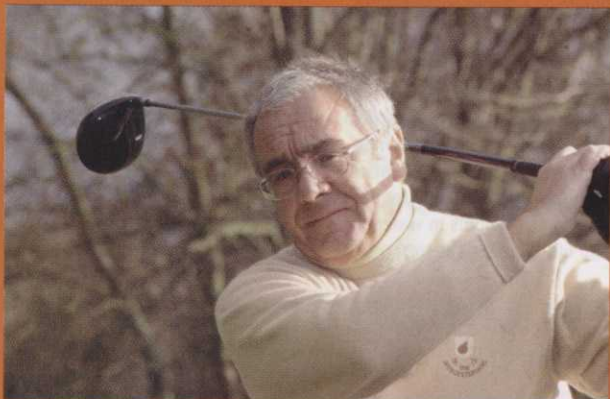
Following last year's disaster! We have been overseeding, with fescue/bent, have maintained a height of cut at 5.5mm and are verti-cutting and topdressing (800Kg/ha) on a fortnightly basis. If we need to pick the pace up for a competition we double cut and roll. We are doing this to try and give the fescue a chance and its actually working quite well, we are getting really good feedback from the members! Looking long-term we have identified the need for larger water storage, and are planning to extend our irrigation lake - I want to quadruple it.

In terms of course management in the Mediterranean zone and dealing with this course, I am aware that we need to apply the resource water with a lot of criteria as the quality of the water here in the south is very bad (high saline content). In the future I believe desalination plants for certain courses will be needed in order to diminish the consumption of water from the dams needed for domestic use.

What preventative steps can I take?

Michael Shaw from the National Golf Clubs' Advisory Association says that golf clubs can minimise the disruption to their courses with a little careful planning.

"Whenever the threat of a hosepipe ban rears its head, Golf Club Managers and Greenkeepers tend to panic. Everyone, including members, has to be sensible and bear in mind that with the British weather it is simply not possible to have Augusta style courses throughout the year."



Michael Shaw of the NGCAA

Michael says clubs should follow these simple steps:

- 1) Check the exact details of the drought order. It might just ban hoses but not sprinklers, and an order wouldn't normally apply to bore holes or water saved and recycled by the club. Once a drought order has been granted then the relevant water authority must inform its consumers either by post or through the local press as to the extent of the restrictions being placed upon them.
- 2) Meet your greenkeeper and agronomist. Make sure you discuss the situation, including the worst case scenario, and work out an plan action. This might include reducing the size of the greens or not dewing the course each morning.
- 3) Brown isn't a problem. Accept that keeping the grass alive is the one overriding issue. This doesn't necessarily mean having it a beautiful green colour the whole time!
- 4) Contact your neighbouring water authority. It might well be that your neighbouring water authority doesn't have a ban in place. Most are happy to sell their waste water but bear in mind the storage issues.

Regarding the vexed question of whether or not members can claim a refund for the days on which they are unable to play because the course is out of commission, Shaw is adamant:

"Clubs can rest assured that members don't have a leg to stand on - although clubs try their utmost, no club will ever guarantee that a course will be fit for play 365 days a year. Given the British weather, this would be madness!"

What would you do? Desperate times call for desperate measures.

Billy McMillan, Greenkeeper for Tyrrells Wood GC in Leatherhead, kindly took the time to tell me how the golf club - recognised as one of the finest golfing venues in Surrey - was coping, since their water supply was cut on May 27.

As soon as Sutton and East Surrey Waters Drought Order, (restricting non-essential use of water), came into effect, the first thing that Tyrrells Wood did, was inform membership. Billy explains:

"We made membership aware of the situation and explained that it would be a tough year ahead." Billy, who described the drought as the most disastrous to happen to golf courses in the south east in decades, continued: "We put a contingency plan in place and prioritized the greens, but this in turn causes stress factors with the tees. We have employed good greenkeeping. Our cutting frequency has gone down, therefore the grass is longer needing more top dressings.

Tyrrells Wood are relying on their borehole for 45% of their water, should the flow rate in the river Nole go below a certain level, then the worry is that their abstraction licence may be cut by 50%.

Billy explains that the fact of the matter is: "Should water be stopped, grass will die." Drastic measures are being considered if the drought intensifies, the main one being buying water. At present the golf club pays Sutton and East Surrey Water 97p per cubic metre for water, should the club buy "grey" water - water that comes out of sewage works or water that hasn't passed sufficient tests to become drinking water and is therefore not fit for human consumption - they will have to pay over 20 times the market value at £22 - £25 per cubic metre.

Billy's brother Ian McMillan, Course Manager at Walton Heath GC - who recently hosted the US Open Qualifier - in Tadworth, Surrey, has recently bought two tankers and is training staff to ferry water from another resource.



Tyrrells Wood GC

IC SurreyOnline recently reported that Redhill and Reigate Golf Club are also planning to use "brown" or "grey" water to help them cope with the drought. If the warm weather continues, the club will need to import this water from Oxted. The club are concerned that members of the public might think they are breaching the recent drought order put in place by Sutton and East Surrey Water, if they are seen watering their greens.

Aeration Additives Conserve Water

Since hose pipe bans in the south of England were first announced, Terrain Aeration have been injecting water storing polymers as part of their deep, compressed air de-compaction treatment.

Injected on the final air blast and using dried, milled seaweed as a carrier, the polymer crystals travel into the newly created underground fractures and fissures where they are capable of expanding to 100 times their original size following rainfall or irrigation.

Operations Director, Lynda Green, who can remember aerating with water storing polymers on Local Authority sports pitches under similar drought conditions in the early to mid 1990s, says that in her experience, the crystals, once in place in the root zone are active for up to 10 years.

"The polymers act as an underground reservoir, absorbing water when it is available, ready for use by grass roots during dry periods," she says. "As soon as the water content of the crystals has been exhausted, they will revert to their original size until they are once again replenished."

Water storing polymers are suitable for injection during the company's aeration treatment of all amenity turf including golf courses, sports fields, and parks and gardens. Trees and shrubs, whether established or newly planted are also ideal candidates.

For further information contact Terrain Aeration on

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Little Ashton golf course using water storing polymers.

New Turf's Suited to Drought

Developed in the scorching Portuguese climate, Xeris grass, with its 3ft 6in root system, passed the test this season at Ipswich Town's Portman Road.

Requiring less watering and able to withstand heavy usage by vehicles and pedestrians, this new type of grass was laid on Real Madrid's

football pitch and has been tested on various golf courses. Suffolk based Sovereign Turf, developed Xeris south of Lisbon, where temperatures can reach the high 30s and rainfall is very low.

Zeba, a starch based polymer, claims to improve soil moisture retention and water availability to the roots of grass plants. Environmentally safe, this product is made from corn and biodegrades over 12 to 16 months.

Zeba can cut watering needs for a year, by capturing water as it enters the soil and preserving it for plant use. It can absorb more than 400 times its weight in water, helping greenkeepers to make the most of soil moisture and reducing plant stress caused by heat and limited water.

For more information visit www.logicalliance.co.uk

BIGGA bulletin board - www.bigga.org.uk

Boreholes and irrigation water have both been hot topics on the BIGGA members bulletin board recently, so I feel it's only right to discuss these alternatives in view of the drought.

The period between February and October last year was the driest on record and this has resulted in renewed interest in new and upgrading irrigation systems on our golf courses. While the general level of irrigation provision on UK golf courses has improved significantly, there is a need to make better use of these systems.

As discussed earlier, greenkeepers wishing to take more than 20 cubic metres of water a day from an underground source, for example a borehole or well, or from a river or stream, need to obtain an abstraction licence from the Environment Agency. The agency has the power to cut existing licences and to decline new bore hole drillings. While boreholes are a dependent option for water supplies, it's important to take into consideration the cost of setting up the abstraction, this can be hundreds of thousands of pounds, but if droughts become a regular occurrence this is an important option to consider.

Reed bed treatment systems have grown in popularity in recent years, although they have been around naturally for a considerable time. They can be built as a complete system, with say some form of primary treatment to remove the gross pollutants, followed by a reed bed treatment system. There are two types of reed bed, namely a vertical flow and horizontal flow system.

Reed beds are proven to be very effective at removing toxic elements from water, but on the downside, these systems require a large land area for correct treatment, and this needs to be taken into account when choosing the system. Anyone wishing to install a reed bed needs to obtain a discharge licence from the Environment Agency. On the upside, reed beds prove to be much cheaper than a waste to water system.

Another viable method for re-using and filtering water is Sustainable Drainage. SUDS (Sustainable drainage systems) are made up of structures built to manage surface water run-off. SUDS provide treatment for surface water, using the natural processes of sedimentation, filtration, adsorption and biological degradation. Sustainable drainage systems benefit from managing runoff flow rates and protecting or enhancing water quality, while also, being sympathetic to their environmental setting.



Eric Green, Course Manager at Woodcote Park Golf Club in Surrey - a part parkland, part downland course, founded in 1912 - spoke to me about the affects that Sutton and East Surrey's drought order is having on their course.

"These are a critical few months," said Eric. "I've never seen our course and other local courses looking so bad."

Unable to use mains water to irrigate their greens, the greenkeepers at Woodcote Park have had to make some serious changes.

Considering building a borehole and having had MJ Abbotts map out a reservoir, the club have had, like Walton Heath, to resort to

using "grey" or "brown" water. Pains Hill at Oxted, is an old water treatment plant, that is providing free water to all golf clubs in the area, as long as they organise their own transport. "It costs £9,500 to hire a lorry and then there's the hiring of lorry drivers," said Eric. "Myself and my First Assistant will be taking heavy goods vehicles driving tests in the near future, as a precaution for next year," continued Eric. Oxted is about half an hours drive from the course and then, of course, there's the time it takes to fill up and empty the tanker. Four runs need to be made each day to transport the 8,000 gallons needed on a daily basis. "The plant closes at the weekend, so we have to store the water up in preparation," said Eric.

As well as tankers, the club have installed water butts around the Club House and staff accommodation, and more recently next to their 17 Century barn. "We have collected 1200 gallons of water from the butts alone," commented Eric. "Water has been drained from a swimming pool onsite, at one of the houses, to use in the sprayers," continued Eric. The upsetting thing for Eric is that passers-by see the club using sprayers and immediately assume that they are floating the drought order, when in actual fact, they are having to make a lot of changes to ensure they don't get fined.

"Being on a chalk down means that the course is easily affected by a lack of water," said Eric. "I've started to stock up on grass seed -

Is desalination the answer?

Desalination is a process that removes dissolved minerals (including, but not limited to, salt) from seawater, brackish water, or treated wastewater.

In the event of extreme drought, the ability to supply water through desalination is an important, non-rainfall option.

Of the more than 7,500 desalination plants in operation worldwide, 60% are located in the Middle East. The world's largest plant in Saudi Arabia produces 128 MGD of desalted water.

In contrast, 12% of the world's capacity is produced in the Americas, with most of the plants located in the Caribbean and Florida. To date, only a limited number of desalination plants have been built primarily because the cost of desalination is generally higher than the costs of other water supply alternatives available (eg water transfers and groundwater pumping).

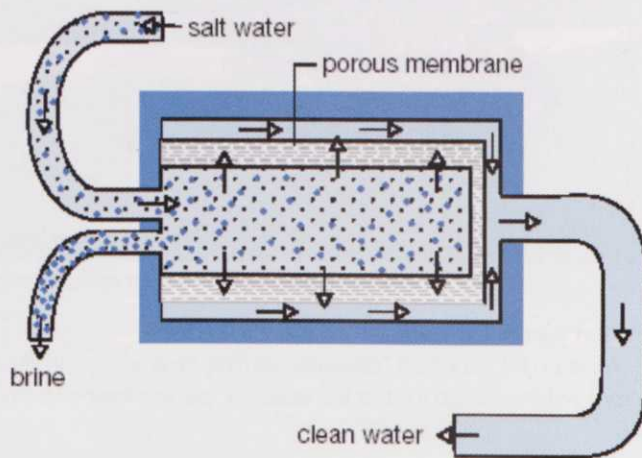
However, as drought conditions occur and concern over water availability increases, desalination projects are being proposed.

A £200m desalination plant was to be built in London, it would've been the first of its size in Britain and could have rivalled many in the Middle East. It could have provided water for the 900,000 people expected to move to the capital within 25 years, and be a back-up in case of emergency.

London's water supply is fragile and with an ever-growing population, Thames Water are concerned that unless a desalination plant is built, re-growth will be threatened.

Even if a drought only occurs every 20 years, this could lead to standpipes and water rationing. Mayor, Ken Livingstone has decided to block the plant, but Thames Water are appealing against his decision.

So it seems there are steps that can be taken, to try to prevent drought becoming an increasing problem. We must ensure that everyone understands what an important and precious resource water is, and make sure that our golf clubs and greenkeepers are well prepared for dry summers.



Desalination. Copyright Sydney Water

Top Tips

- Reduce or eliminate nitrogen fertiliser - Nitrogen overly promotes leaf growth, at the cost of the roots. Plan on fertilising in the fall when top growth slows down and root growth increases. Use a slow-release fertiliser, if possible.
- Avoid herbicides - Most weed killers also reduce the vigor of grass roots.
- Reduce thatch and compaction - Aerify early in the year so moisture and air can reach the roots as easily. Thatch can act like a sponge, and compaction will increase run-off.
- Sharpen the mower blade often - Dull blades will shred grass and greatly increase water loss.
- Mow less or when it's cooler - Grasses lose moisture after every mowing, but less is lost if you mow when the weather is cool.
- Mow as high as possible - Taller grass promotes deep rooting and shades the soil.
- Leave clippings, not clumps - Returning grass clippings will add moisture and nutrients to a lawn, while providing a mulching effect.
- Reduce traffic on the lawn - Try to stay off the grass, especially during the heat of the day.

When you do irrigate, make sure you use conservation practices:

- Water late at night or early in the morning - taking advantage of cooler temperatures and less evaporative losses to afternoon winds and hot sun.
- Water infrequently and deeply - this encourages roots to go deeper where moisture remains available for longer periods of time.
- Let the grass go dormant naturally by withholding water, except for 1/4-inch every four to six weeks, this will keep the crowns hydrated and ready to green up when moisture becomes available.

Watering plants:

- Gardens consume an enormous amount of water. A sprinkler can use as much water in an hour as a family of four uses in a day. They can actually damage your plants. Choose trickle systems, which can work from a water butt without mains pressure and avoid the heat of the day.
- Rainwater is better for plants anyway. Collect it from your roof with a rainwater diverter and water butt.

For further advice on the drought, contact:

The Met Office: 0870 900 0100

Email: enquiries@metoffice.gov.uk

DEFRA: 08459 33 55 77

Email: helpline@defra.gsi.gov.uk

Environment Agency: 08708 506 506

Email: enquiries@environment-agency.gov.uk

Visit:

www.beatthedrought.com

www.water.org.uk

Water Authorities:

Southern Water: 0845 278 0845

Scottish Water: 0845 601 8855

Yorkshire Water: 08451 24 24 24

Water Direct: 0845 3451725

South Staffordshire Water: 01922 638282

Severn Trent Water: 0121 722 4000

Thames Water: 0845 9200800

Sutton & East Surrey Water Plc: 01737 772000

Anglian Water Services Ltd: 0845 7919155



Wanting to improve your water usage?

Ken Richardson, Education and Training Manager for BIGGA, will be holding a two day workshop during Harrogate week entitled: Water usage on the golf course. In addition to this, a 1 day Drainage Workshop and a seminar on Water usage in amenity turf, will also be held.

For further details check out our website: www.harrogateweek.org.uk or contact Sami Collins at sami@bigga.co.uk

Help is at Hand

McPherson Ltd, a large tanker haulage company based in Scotland and northern England, has the facility to supply "non-drinking" water, to organisations.

Golf clubs that are affected by water restrictions can use their fleet to transport water from Scotland or more local sources, such as the Oxted spring water supply in Surrey. The company can deliver into customer storage tanks or leave their tankers on site, to swap over when required.

- 22,000 litre tanker = 10p per litre
- 28,000 tanker = 7p per litre

The above prices are estimates based on transporting water from north Scotland to south London.

Contact Graham Dixon, Contract Manager, McPherson Ltd, on: 0161 886 3540 or email: gdixon@abn.co.uk



How To Squeeze Out The Last Drop

Roger Davey, of independent irrigation consultants Irritech, works closely with Toro. He discusses how good water management can help golf courses to avoid running dry in times of drought

With all this talk of drought, there is a real danger that sprinklers will be banned on golf courses, but by putting good water management programmes in place, greenkeepers and golf course managers can ensure water supply continuity for the foreseeable future.

The volume of water used by golf courses varies immensely from course to course. Factors such as construction of greens or tees, the area to be irrigated, aspect of the site (altitude/links course, etc), management techniques (and manager!), as well as the age, type and efficiency of the irrigation products that apply the water, all have a bearing and are crucial in water management.

So where can we get water from? Sources of water for irrigation can be generally classified as follows:

Mains potable supply

Supplied by the water company or water provider. Costs vary throughout the UK, but average approximately £1 per cu m (220 gallons is 1 cu m of water). This is generally a good quality supply of water. However, in times of water shortage the first casualties are those that are not 'essential' users - and that means those with sports turf areas and golf courses.

Borehole supply

Water is abstracted from below ground via a borehole pump either during the summer, the winter, or all year round. This is subject to an abstraction licence issued by the Environment Agency. Water quality needs to be monitored regularly and costs can be a fraction of mains water (water taken during the winter months is stored in a water storage reservoir for summer use).

Surface water abstraction - streams or rivers

As with the borehole, a licence is required. Costs are minimal and, when abstracted in the winter, water is taken at times of excess to be stored in a winter storage reservoir for summer use.

Treated sewage effluent (TSE)

Recycled water from sewage treatment works or the golf club's own treated sewage system. This must be solids-filtered and passed through an ultra violet filter prior to irrigation system use. The water must be tested regularly and a detailed management risk assessment undertaken (this applies to the storage and use of all water).

Grey water, roof run-off and surface run-off

Ecologically a very 'friendly' way to catch and utilise water. However, large water storage areas are required as water can be obtained only when it rains - when irrigation is required surface run-off is not available, because it has not been raining - again the topic of winter storage looms!

Of the above sources (specifically mains water, borehole and surface water abstraction) permission must be granted by the provider and the Environment Agency for the use of water for spray irrigation. However, if, for example, usage is less than 20cu m per day from a borehole, an abstraction licence is not required. In many cases 20cu m will be enough for emergency irrigation if the end user, and irrigation system, is efficient. Prior to drilling a borehole for this flow, permission must be sought and granted from the Environment Agency.

Winter storage reservoir

This is the term often used to define the site used to store water gathered from sources such as surface run-off and boreholes during winter months. The correct siting of water storage resources is paramount. For example they should not be an integral part of the 18th hole, as by the end of August, having served its purpose, the reservoir will become an eyesore as levels will have fully dropped.

Winter storage should ideally be sited at or in an area that is not in play, can be easily accessed, allows the supply of power effectively and easily, and can provide an area large enough to store the required volume. Always design a reservoir based upon seasonal usage and not total storage volume, but effective storage volume! Many reservoirs will require lining, and all will require planning permission and Environment Agency approval for filling. But once constructed, it will provide the club with a reliable source of water throughout the irrigation season.

So, now that we have it, or know where to get it, how do we make the most effective use of it?

The approach is multi-faceted and no one rule is golden. However all good irrigation systems depend upon:



- Accurate and effective application of water through evenly and accurately-spaced sprinklers that produce a uniform coverage. In simple terms - sprinklers that place water where you want it, when you want it.

As always technology helps - today's sprinklers have cutting-edge nozzle technology and nozzle angle adjustment. However, even the best sprinkler selection will not work effectively and provide a high coefficient of uniformity unless correctly spaced. This means head-to-head coverage - a sprinkler with a radius of throw should be spaced at no more than 20m from the opposing units when on a square spacing.

- Know your water requirements - ask 100 turf managers how much water they put on during a night and 80 will tell you eight minutes! Minutes means nothing - millimetres means everything.

The calculation of required water per night is simple and based upon the volume of water lost during the previous 24 hours. This can be measured either by practical means (evaporation pan) by formulae calculation, or by automatic means, such as a weather station linked to a PC-based control system.

This water application calculation is vital in conserving water and ensuring that water is not wasted, and, when used in conjunction with a water balance sheet, considerable savings are made.

- Control your water application - water automatically during the hours of darkness when water can percolate before it is evaporated; use multiple programmes to allow water to infiltrate and prevent run-off; use a PC-based control system which is essential as it allows multiple starts each cycle and water volume can be recorded.

- Prevent wastage or leakage, repair all pipeline leaks and weeps, and isolate areas that are problematic. Upgrade the mainline pipe network to provide a trouble-free supply.
- Ensure that all sprinklers are pressure regulated, either as electric valve-in-head units, or that the solenoid valves controlling the sprinklers are installed with a pressure regulator.
- Audit and appraise your sprinklers (or have the system audited and appraised), calculate actual run times and application rates according to the actual sprinkler spacings and nozzle flows and pressures.
- Seek to plan water usage; predetermined irrigation strategies rarely fail. This means a known volume of water over a known period at a known application rate.
- Emergency sourcing of water - in theory if the irrigation strategy has been executed, this should not be required. However if an emergency supply of water is required the irrigation system water usage calculations and run time and evapotranspiration calculations per area will be invaluable to determine how much water is required, and when.

Emergency sources of water may be those such as imported tankers of treated sewage effluent, or water purchased from other users (such as farmers) whose irrigation cycles are somewhat different to golf course requirements. For some agricultural enterprises, the irrigation system is finished by mid to end of July. All sources of water should be tested upon delivery or be delivered with a test certificate. This can and will affect the fine turf management regime and the operating risk assessments.

Other regimes, including adjusting cutting heights, the use of wetting agents, prioritising irrigated areas, and informing the end user (the golfer) are also paramount.

Asking questions internally often helps to appraise the issue. How much water do I need per area, per day, per week, per annum? Can the infrastructure then apply this when I really need it to? How can I purchase extra water if the volume required or used by the system is not known?

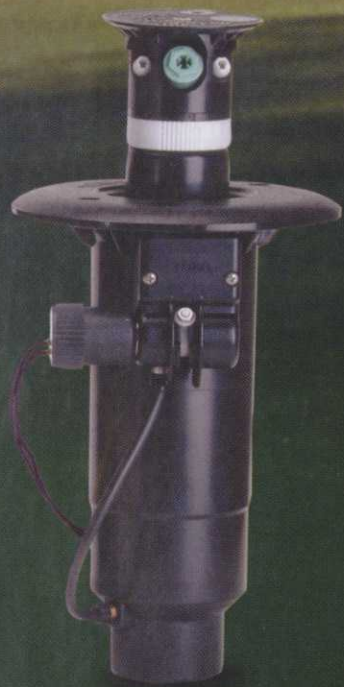
In order to have a reliable irrigation strategy, the end user must have in place the above items. When developing and/or upgrading an irrigation system, this can take up to two years to put in place, but the ability to apply water when it is required accurately and efficiently is a huge management tool and, as with most other things in life, you only get out that which you put in - or in this case, on!

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TORO

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Labour of Love for Golf Lovers

It's a little like finding an old antique in the attic, but in this case this old masterpiece is in need of a little bit more than a little clean and a Sotheby's valuation.



It could also read like a script for an Indiana Jones film, or at least a golf version of an Indiana Jones film.

In a nutshell. Gordon Irvine MG visits his local estate agents in Ayrshire, to organise a fishing trip with the factor (land agent) of a Scottish estate when his profession - greenkeeper - crops up in the conversation. The next thing Gordon is offering to fly to the Outer Hebrides to look at a golf course. When he arrives he realises that he's fallen upon a rare treasure.

Let Gordon take up the story.

"The guy in the estate agent had lived and worked in South Uist, in the Outer Hebrides, and mentioned that his friends looked after a nine hole course on the island and could I perhaps give them some professional advice. I know how hard the job is, doing it full time without doing it voluntarily and I had a few air miles spare so I organised to go up one weekend," explained Gordon, who is currently involved in the revamping of Royal Cinque Ports and Rosslare in Ireland.

"When I got there I found Askernish, a nine hole course in poor condition but the volunteers told me that it had been laid out by Old Tom Morris. Looking at the course I was a little sceptical, as you hear these sorts of claims all the time, but then they showed me a newspaper cutting from The Times in 1898, which raved about the course."

Old Tom used to charge £1 a day plus expenses for design work, and played a part in the design of many famous courses, including Prestwick, Royal Dornoch, Muirfield, Carnoustie, Royal County Down, Nairn and Cruden Bay.

But Askernish must be the most remote of all the courses designed by the great man having apparently been persuaded to lay out the course while on a fishing trip to the island in 1891.

"I was told that some of the course had been turned over to the RAF to make a runway in the 1930s and that the original course had been on the links land nearby. We walked over and sure enough you could see this amazing links land and, because it was winter, you could just make out some of the original holes. It was absolutely incredible."

There and then Gordon offered that, rather than help them with their current nine holes, they work to restore the original course and that he would work on the project unpaid and bring in whatever help was required.

As he was working closely with Architect, Martin Ebert, at Cinque Ports, he sold the idea to him with a view to Martin providing half a day's consultancy but he persuaded him with such gusto that Martin became as excited about the project as Gordon himself to the extent that he, like everyone else involved, has gone way over any initial commitment made.

In the report Martin wrote on the course he states: "It is not an exaggeration to say that the duneland to the south of the existing course is the perfect terrain over which to route holes and it is hard to imagine that there has ever been better raw material for the laying out of a course anywhere in the world."

High praise indeed!

"When we went back in February the local volunteers had spoken with some of the older islanders who could recall watching golf being played and with their help we were able to identify some of the holes. As the course was paid for by Lady Cathcart we concluded that the course would have started and finished close to her house. We eventually became confident that we'd located 12 of the original holes and set about laying out the other six.

Gordon has roped in fellow greenkeepers including Alex McCombie, of Parkstone GC, Chris Haspell and a group of greenkeepers from Denmark, to give up time to work on restoring the course as close to its original condition as possible. Adam Lawrence, Editor of The Golf Course Architect magazine and Malcolm Peake, of Temple Golf Club, have also given support and shown great interest in the project.

As part of the promotion of the course, Malcolm Peake has organised for Terry Wogan to make mention of the project on his Radio 2 show, while a package to visit and play the course has been offered as a lot, in the Children in Need Auction. Life Memberships are also available.

"Alistair Beggs is another who has lent his support and he was instrumental in talking with the local crofters who were concerned about the grazing rights they currently enjoy on the land. Alistair was able to tell them that having sheep grazing the golf course was perfectly compatible with a working golf course," explained Gordon.

"We want to use traditional methods wherever possible, the only exception being the greens which will be maintained using more modern methods as we want and need quality putting surfaces. They are small and we will make them bigger unless it were to mean losing the original feel of the green.

"Martin wants to incorporate Royal County Down style bunkering with the marram grass faces and I haven't been involved in the construction of such bunkers so it will be interesting.

"It's a real step back in time. There will be no irrigation so we'll be looking at moisture retention techniques and ensuring that we don't disturb the growing medium once work has been carried out. What we do must be sustainable," said Gordon, who is also training the island volunteers, who are heavily involved in the project, in greenkeeping, as they will be maintaining the course in the long term. Colin MacGregor is the man who has been responsible for maintaining the existing course virtually single handed and he will carry on his good work once everything has been completed.

No drainage will be required as the course is so free draining, while tees will be turfed with local turf taken from the fairways of the existing course. Fairways will be mown down from existing grasses with imperfections of levels harrowed and rolled out. The existing soil at the greens is the perfect medium - natural sand enriched with organic matter in the first 150 to 200 mm.

The principle maintenance operations for greens will be top dressing with sand and aeration.

"Realistically I'll be spending a couple of days a month and perhaps the odd week up there and I'm grateful for the great support we have received for some many quarters," he said, adding that Rupert Price of Ransomes Jacobsen and IMG have offered their help.

Speaking with Gordon you can't help but pick up on the excitement and enthusiasm he has for a project which has captivated everyone who has become involved.

"The pace of the project will very much be determined by the amount of support we get and I'd like to thank everyone who has helped so far."

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The Appliance of Science

David Robinson, outlines the latest developments in top dressings and highlights the important role its dressings are playing in the preparation of Hoylake, for the forthcoming British Open.

In the search for ever-improved quality of greens, the production and application of high quality, consistent top dressings has become increasingly important and scientific.

The status and reputation of a golf course is all too often judged on the quality of its greens, which is why treatments and materials which can improve a playing surface, have been a key part of every greenkeeper's armoury since golf began.

Until as recently as 30 years ago, most greenkeepers were still producing their own top dressings on site for fine turf areas, such as greens and tees. Using a mix of local sands, soils and grass clippings they produced a composted soil product which was then screened using a traditional hand-riddle method. Made largely from the same materials as rootzone they ensured a consistent green construction.

As commercial production of top dressings developed, the need for golf clubs to maintain their own on site production diminished and today every golf club will source top dressings from a specialist supplier.

As to which top dressing, and indeed which supplier to use, this really can depend on the location and aspect of the golf course and the specific construction type of your greens. But it is perhaps best to firstly recap why top dressings are used and why they are such a key ingredient when it comes to producing successful putting greens.

Essentially, the role of top dressings is to assist the greenkeeper in producing a true and level, top quality playing surface. Top dressing helps to break down a green's thatched layer, it smoothes out surface irregularities and improves the utilisation of natural and man-made irrigation sources. Used as part of a verti-draining process, top dressing aerates the underlying root level and improves drought tolerance.

HIGH PERFORMANCE

Given that top dressing has so many performance criteria to fulfil, more careful consideration is needed as to what actually constitutes a top dressing. Essentially the key ingredients are sand (the bulk constituent), silt and clay and a small percentage of organic matter which may be soil, peat or green compost. The industry talks in terms of ratios, for example 80/20 or 70/30 which is essentially the percentage blend of a top dressing - i.e. 70% or 80% sand by volume. But that, of course, is only half the story because the most important detail is the type and grade of sand.

It goes without saying that not all sands are the same and that there are significant variations in particle size or pH balance.

Sand is processed according to particle size, colour or chemical composition, and can be supplied in a moist or dried state. At Bathgate, for example, our high purity silica sand is washed, screened to size, heat-treated, and blended and graded to a fine uniform consistency. On-site laboratory facilities utilise the latest computer based testing and all aspects of the business operate under the auspices of BS EN ISO 9001: 2000 Standard for Quality Management Systems.

COMPATIBILITY

From a greenkeeper's perspective, all that really matters is finding a top dressing that is compatible with their own course's greens profile and it is here that the importance of a reputable specialist supplier is invaluable. Laboratory-controlled sampling and testing of existing top dressing is essential, with pH, silt/clay and particle size distribution analysis all necessary. Taking soil profiles from a number of different greens is an additional service that most reputable specialists will offer.

The Appliance of Science



The particle size distribution of a top dressing should be compatible with that of a green's profile in order to maintain or enhance the drainage characteristics. A hydraulic conductivity test will determine whether particle size distribution is acceptable for effective drainage. Coarse over fine, for example, may result in a green surface that is deficient in nutrients and has a low water retention, whereas fine over coarse may result in a surface which retains water with very little air-filled porosity.

The pH of top dressings is also important, with neutral (7) or very slightly acidic dressings, the optimal specification. A growing practice amongst some top dressing suppliers is the use of recycled composted green waste as one of the organic constituents. However, there remain some question marks over the effect this might have on consistent product quality, the argument being that no two batches of recycled waste can ever be the same and therefore the pH level of the dressings are bound to have variations.

Nor has the top dressings market been unaffected by the current 'hot topic' of climate change. Certainly in this country, the blurring of seasons and greater year-round rainfall consistency has had an impact on green upkeep, with a marked move towards slightly more coarser dressings being used.

Another major development in the top dressings market has been in application equipment. The traditional 'belt and brush' method of application was, for too many greenkeepers, seen as labour intensive, time-consuming and disruptive. New spinning plate 'spray apply' equipment can help deliver a more even spread of top dressing and in much quicker time.

Where once it might have taken a full day to apply top dressings to all 18 greens, it may now be done in just a couple of hours. Where once greenkeepers would only consider top dressing twice a year in spring and autumn, now the adage is 'little and often', with the new technology making light and frequent top dressing a cornerstone practice for more and more greenkeepers all through the growing season.

THE OPEN

All of which brings us to the Royal Liverpool Golf Club at Hoylake, scene of this year's Open Championship. The day to day challenges faced by greenkeepers at golf clubs the length and breadth of the country are magnified a hundred-fold when you have the eyes of the golfing world on you for four days in late July.

Bathgate has been supplying top dressings to Hoylake for several years, though never has the course been under such close public and professional scrutiny, with this its first Open for almost 40 years. Which perhaps explains why top dressing is not only being applied throughout the tee and green areas, but also extensively on the fairways, to help produce an immaculate playing surface befitting this prestigious tournament.

The scale and the profile of the application may be very different to our day to day business supplying golf clubs up and down the country, but the objective remains exactly the same: to work with the green keeping staff to ensure that when people come to judge the golf club, they speak in only the highest terms about the quality of the course.

David Robinson is General Manager of Bathgate Silica Sands. For further information call: 01270 762828 or visit: www.bathgatesilica.co.uk



Royal Liverpool Golf Club, Hoylake - the scene of this year's Open Championship



Making Golf Courses More User Friendly

A Golf Course Architect's Perspective

Jonathan Tucker provides some invaluable advice on getting a course into proportion for your membership.

Arguments over many years, have raged, concerning the threat of advances in equipment technology to the challenge offered by our golf courses, notably at the Championship end of the spectrum. Are these portents of apocalypse justified? Undoubtedly the advent of drivers with heads the size of footballs and sweet spots to match, allied to golf balls with higher launch angles have served to democratise length. But this process has not been without its trade-offs - increased distance does not equate with more accuracy and indeed usually the converse applies! As Lee Trevino once said: "It's not the bow or the arrow, but the Indian".

One of the main problems is that we can lose sight of the principal end user of our golf courses. It is a fact that we have an ageing golfer population and, whereas golf equipment is helping to maintain the balance, the overall spread of handicaps has not significantly shifted with the average equating to around 18 at the majority of clubs. Golf perhaps more than any other sport exposes the gulf between the novice and the low handicap player and in particular, the professional. This latter breed has evolved almost along Darwinian lines as improvements in fitness levels, strength and conditioning have arguably had as much influence as equipment technology.

If we are to encourage new golfers into the game, which is essential to its long-term survival and ensure that golf is seen as a pastime and not a penance, we must reconcile these differences and make golf attractive regardless of ability.

There are perhaps two main strands to this discussion:

1. The layout of the golf course and associated golf elements.
2. Agronomic issues and course conditions.

Let us first consider the issue of course length. The majority of well-established courses have progressively evolved in an attempt to keep pace with advances in golf equipment and one of the main devices has been the creation of tees placed further and further back - until boundary or internal safety constraints come into force. However, to cater for the wider spread of abilities multiple tees, staggered over a wide area, are the answers.

Given that generally ladies hit the ball only 75% of the distance of the men and lower handicap ladies 85%, courses for ladies should be around 4,800 to 5,200 yards in order to equate with the average men's course of 6,400 to 6,900 yards. This is well short of the general average of a ladies' course of around 5,600 to 5,700 yards. The general system involving a back white medal tee (perhaps a blue championship tee), yellow tee for general play and red for ladies could therefore be expanded to incorporate a forward ladies' tee in addition to the existing ladies' tee. This two-tee system for women would, as a consequence, have holes which would equate to the broad guidelines as in the table



Multiple tees for varying ability

LADIES' BACK TEE

par 3 120-200 yards

par 4 300-380 yards

par 5 420-540 yards

LADIES' FORWARD TEE

par 3 60-150 yards

par 4 240-340 yards

par 5 401-420 yards

The existing back ladies' tee could be made gender neutral so that low handicap ladies, juniors and some senior players can play a more manageable length of course. But I am sure that there will be a certain element within golf clubs that find the suggestion of providing an even shorter course anathema, but it is all a question of flexibility and providing a realistic challenge for all.

Positioning of tees is also inextricably associated with linkage between holes. In the writer's opinion, golf is best enjoyed carrying a bag of clubs. However, long arduous walks between green and tee are undesirable with



Water features can be extremely attractive but should be employed appropriately



Original green at Sitwell Park-Alister Mackenzie

preferably a maximum distance of 60-80 metres between the green and next tee. If longer walks are enforced, try and break up these with attractive landscaping or alternatively open up vistas where these can be had to provide a visual distraction.

Positioning, type and profusion of hazards on a golf course is another contentious topic, which needs to be considered further. The appearance of water features on many of our new courses provides an immediate visual impact and can add considerably to the challenge and sense of achievement once negotiated. But, overuse of water features or inappropriate positioning can simply lead to frustration! Generally, enforced carries should not exceed 75 yards for the weak player. Alternatively, water hazards could be circumvented by providing different routes of play, i.e. strategic rather than penal design or "risk v. reward".

In an attempt to toughen up holes, sand bunkers are often overused. Indiscriminate placement around greens can lead to a form of target golf, which favours iron play and the high rates of spin imparted by the low handicap and scratch player, in order to hold the green. A very well defended short par 3 or short par 4 hole has its place but greenside bunkering should also serve to accentuate the strategy of a hole and define zones of difficulty within the putting surface for pin placement.

Hazards placed prominently in the middle of fairways, for example, bunkers or even feature trees, can also be extremely effective and not just punitive, provided that there are still alternative routes or strategies to overcome the hazard.

Fairway bunkering on many of our old courses has failed to keep pace with advances in equipment and therefore punishes those "who carry their own bunkers with them". Removal and repositioning can redress the balance but this should be done under professional guidance. Bunkers serve several purposes on the golf course including:

- As a hazard affecting the strategy of play.
- For aesthetic or landscaping purposes.
- As directional indicators.
- For retention (i.e. to reduce conflict with adjoining playing areas).
- For safety, e.g. to direct golfers away from vulnerable boundaries.

All the above should be considered in the process of bunker rationalisation.

The role of grass hollows or grass bunkers, should not be underestimated as they can provide considerable playing interest and, compared with a sand bunker, are generally easier to negotiate for the high handicap player. Provided the low spots are well drained and the

smoothness of the contouring is conducive to efficient maintenance, grass hollows are very effective both as part of the green complex and "through the green".

And finally, we come to the influence of modern maintenance techniques and their impact on design. Many of the diverse courses constructed during the "Golden Age" of architecture during the 1920s and 1930s were typified by steeply sloped and tilted greens with gradients, which could be 5-7%. This was acceptable under the management regimes operating at the time but fast-forward to the present with Stimpmeter readings of 11-12 foot on the new bentgrass, cultivars cut at 6/64 inch and putting becomes a virtual impossibility.

Modern greens are constructed with more moderate slopes with a rule of thumb that overall gradients should not exceed 3% for traditional bentgrass/fescue greens (or relaid bentgrass/annual meadow-grass greens) and perhaps 2% for the tightly shaved creeping bentgrass varieties. When it comes to restoration of our classic courses there can be a conflict. This can be resolved by either managing the expectations of the golfers and manipulating greens speeds, so that a degree of control can be exerted or by maintaining the character and essence of the green but moderating the contours. This is a subject for separate debate! Suffice to say, our golf courses are living entities which evolve over time and many of the original contours with greens have either been softened or indeed accentuated over the years by top dressing, green settlement, etc.

Fairway conditioning has also improved immeasurably with the armoury of modern equipment and in particular mowing machinery, now available to the greenkeeper. Lower mowing heights produce more ball roll, but equally, high handicap golfers find it more difficult to sweep the ball off the turf. By contrast, the professional likes a minimum amount of grass between club head and ball for control. Therefore, the main issue is one of balance and sustainability.

Fairway shaping can also have a profound influence on the playability of a hole for golfers of differing ability. For example, a wide landing area of 40-50 yards for the high handicap player can taper to a much narrower section of 20-25 yards in the range of the lower handicap player - thereby placing a premium on accuracy as well as length.

In summary, it is true that occasionally we need to massage the ego of the golfer and provide a fitting challenge on our golf courses. However, a tough golf course is not necessarily a good golf course. An element of fear is no bad thing but the challenge must be commensurate with levels of skill. Therefore, flexibility in golf provision is the key to success.

Jonathan Tucker is a Golf Course Architect for the STRI



Life-long Learning in the Workplace

BIGGA and the Greenkeepers Training Committee are fully committed to vocational qualifications for greenkeepers. Key parts of these qualification is the learning of Knowledge and Skills plus the assessment of those skills in the work-place.

Plan-It Training and Consultancy has worked for more than ten years, in collaboration with the GTC, to introduce successful life long learning for golf greenkeepers.

The provision of work place assessors and work place trainers has been Plan-It's core activity but they are now developing a range of management and professional development courses within the golf industry These courses will give greenkeepers the opportunity to gain professional management qualifications such as the Diploma in Management Studies and the Certificate in Management Studies.

Other industries, throughout the UK, have benefited from working with Plan-It with many of the projects being supported by the European Social Fund.

Although currently working with over 450 greenkeepers in England, to develop their at work assessor and trainer skills, Plan It are actively spreading the good news on work-based learning and assessment to the United States.

Moreover, with the success in 2006 Plan-It, the GTC and BIGGA are working together to create even more opportunities for life long learning by holding Workshops during Harrogate Week 2007.

Further information about all the courses and programmes operated by Plan-It Training can be obtained by calling the Plan-It HQ on 01606 558666 or 01270 528 338. Alternatively contact Plan-It by emailing them at training@plan-it.net.



"what we think, we become" ...Buddha

At Plan-It Training, we recognise that every organisation is a collection of individuals who have come together to pursue a common objective. The success of our organisation will depend upon the success of the individuals within it, and as such, we are dedicated to the effective identification and delivery of your training needs, and hope to contribute to the success of your organisation.

We also recognise that your skills and talents are important to the business or people that you support. How you see yourself is reflected in your performance and how you perform is reflected in both your recognition and your personal satisfaction. That is why we want to deliver bespoke training, tailored exactly to your requirements; in a setting which is both comfortable and acceptable to all.

Plan-It Training offers Nationally Recognised qualifications in Training, Assessing, HRD, Internal Verification and Management along with the Certificate and Diploma in management studies 'CMS' and 'DMS'

"desire is the starting point of all achievement" ...Napoleon Hill

For more information contact Iain on:

Email: training@plan-it.net

Tel: 01606 558 666 or 01270 528 338 (after 10th Jan 06)

GREENKEEPER TRAINING



BIGGA is actively involved in raising the Standard of Greenkeeper Training. The Association is a member of the Greenkeepers' Training Committee and strives to enhance the level of education through various means, including Section, Regional and National workshops, seminars and conferences.

The range and quality of training now available throughout the UK means that there is a training course for every greenkeeper. This should improve the quality of greenkeeping and help to produce better quality golf courses to the benefit of all within the industry.

Golf Course Managers should ensure that their staff are trained to the highest standards. This begins by selecting a training provider that meets the criteria laid down by the GTC. There is a clear link between education, training and economic success and all clubs should invest in the education of their staff.

Ken Richardson
Education and Training Manager
British and International Golf Greenkeepers Association
Tel: 01347 833800
Email: education@bigga.co.uk
Website: www.bigga.org.uk

SCOTLAND



ELMWOOD COLLEGE Cupar, Fife, KY15 4JB **Contact:** Sam Letham **Tel:** 01334 658842 **Fax:** 01334 658888 **Email:** sletham@elmwood.ac.uk **Web:** www.elmwood.ac.uk
Information: Full time National Certificate Greenkeeping: Block Release SVQ Level II, SVQ Level III Sportsturf block release and Outreach available, and SVQ Level IV, HNC/D Golf Course Management available as full-time and distance learning. HNC Golf Facility Management, HND Golf Facility Management, PDA for football and cricket available Outreach. FEPA and COSHH, chainsaws, tree climbing and rescue techniques and Health and Safety short courses also available.



GOSTA TRAINING LTD 50 Brook Street, Glasgow, G40 2AB **Contact:** Chris Bothwell **Tel:** 0141 556 3999 **Fax:** 0141 556 4999
Email: learn@gostatraining.co.uk **Information:** SVQ II, III and IV also Modern Apprenticeship in Sportsturf including other options and GTC Training Manual. Attendance Day release from November - March. Distance Learning also available. Short courses with certification include Pesticides, Chainsaw, First Aid, Risk Assessment, Abrasive Wheels, Full Range of Machinery Courses, Manual Handling and Fire Extinguisher training. Consultancy service for Health and Safety Policy development, Site Risk Audits, Machinery Permit to Use system, COSHH and Noise Assessment.



LANGSIDE COLLEGE Rutherglen Campus, Buchanan Drive, Rutherglen, Glasgow, G73 3PF **Contact:** William O'Neil **Tel:** 0141 272 3823 **Email:** woneil@langside.ac.uk
Information: SVQ, SGA, HNC, HND. Full time and part-time courses in Greenkeeping, Groundsmanship, Golf Course Management, Horticulture, Land and Environment and Applied Ecology. Short courses for land-based industries including Pesticides.

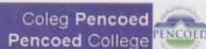


OATRIDGE COLLEGE Ecclesmachan, By Broxburn, West Lothian, EH52 6NH **Contact:** Steve Miller **Tel:** 01506 864800 **Fax:** 01506 853373
Email: info@oatridge.ac.uk **Web:** www.oatridge.ac.uk **Information:** Full-time National Certificate in Greenkeeping: SVQ Level II and GTC Manual (Day and Block Release): SVQ Level 3 Sportsturf & SVQ Level 3 Fast Track (Day and Block Release) SVQ Level III in Service Engineering, full range of Amenity Horticulture, Landscaping and other land based subjects at HND and HNC, National Certificate and SVQ Levels; Short Course - FEPA, Chainsaw, Forklift, First Aid.



SOUTH AYRSHIRE COUNCIL GREENKEEPING COURSE Chief Executive's Department, Training & Development Centre, 15 Links Road, South Ayrshire
Contact: Gordon McGinn **Tel:** 01292 678861 **Fax:** 01292 671790 **Email:** gordon.mcgin@southayrshire.gov.uk **Information:** SVQ Level 2 Amenity Horticulture: Sportsturf, SVQ Level 3 Amenity Horticulture: Sportsturf and the Modern Apprenticeship in Amenity Horticulture

WALES



PENCOED COLLEGE Pencoed, Bridgend, Cardiff, CF35 5LG **Contact:** Paul Discombe or John Sullivan **Tel:** 01656 302672 **Fax:** 01656 302601
Email: pfdiscombe@bridgend.ac.uk **Web:** www.bridgend.ac.uk **Information:** NVQ Sportsturf Level 2-3, HNC/HND Turf Management. National Certificate/Advanced National Certificate - Sportsturf Management. Short courses: PA1, PA2 PA6a and Chainsaws. NCH National Certificate in Horticulture. Advanced National Certificate in Horticulture.

Training providers guide

Available courses guide

This guide is not exhaustive and a full list of GTC approved training providers can be obtained from the GTC. The Greenkeepers Training Committee (GTC) are continually reviewing the approved status of training providers offering greenkeeper training courses. Anyone with a query regarding greenkeeper training should contact the Greenkeeper Training Committee at Aldwark Manor, Aldwark, Alne, York YO61 1UF, Tel: 01347 838640 or visit their website at <http://www.the-gtc.co.uk>



ASKHAM BRYAN COLLEGE Askham Bryan, York, North Yorkshire, YO23 3FR **Contact:** Central Admissions Tel: 01904 772211 **Email:** enquires@askham-bryan.ac.uk **Web:** www.askham-bryan.ac.uk **Information:** First Diploma in Horticulture, Higher National Certificate in Horticulture (Golf Course Management): Part-Time Study, Foundation Degree Horticulture or Landscape and Garden Management, Foundation Degree Horticulture, all available full or part-time. Block release courses: NVQ Level 3 Greenkeeping and Sportsturf Maintenance, NVQ Level 4 Amenity Horticulture. Short courses: FEPA spraying, chainsaw and brushcutter courses.



BERKSHIRE COLLEGE OF AGRICULTURE Hall Place, Burchetts Green, Maidenhead, Berkshire, SL6 6QR **Contact:** Deborah Smirfitt Tel: Freephone 0800 0711 666 **Fax:** 01628 824695 **Email:** enquiries@bca.ac.uk **Web:** www.bca.ac.uk **Information:** Located in the Thames Valley, BCA has excellent resources for horticultural based training including a six-hole golf training facility opened by HRH The Duke of York. Programmes include the First Diploma, National Certificate and National Diploma in Horticulture, with Landscape Design and Greenkeeping options plus Apprenticeships, Higher National Diploma/Certificate programmes. Part-time programmes include NVQ Level 2 and 3 Amenity Horticulture, Sports Turf. Residential accommodation is available and free parking on site.



BRIDGWATER COLLEGE CANNINGTON CENTRE FOR LAND-BASED STUDIES, Cannington, Bridgwater, Somerset, TA5 2LS **Contact:** Course Enquires Tel: 01278 441234 **Fax:** 01278 444363 **Email:** enquiries@bridgwater.ac.uk **Web:** www.bridgwater.ac.uk **Information:** National Certificate in Horticulture (Sportsturf), Advanced National Certificate in Horticulture (Sports Turf), Certificate of Higher Education in Golf Course Management, Foundation Degree in Golf Course Management, NVQ Level 2 Sports Turf, NVQ Level 3 Sports Turf, FEPA Training, Chainsaw Certification, Greenkeeper Mechanics. Note: The Certificate of Higher Education and the Foundation Degree are available as part-time options.



EAST DURHAM AND HOUGHALL COMMUNITY COLLEGE Houghall, Durham, DH1 3SG **Contact:** Ian Lacy Tel: 0191 375 4754 / 0191 375 4740 **Fax:** 0191 386 0419 **Email:** enquiry@edhcc.ac.uk **Web:** www.edhcc.ac.uk **Information:** Full-time courses: National Certificate in Horticulture/Greenkeeping and Groundsmanship - 1 year; National Diploma in Horticulture Turf Option - 2/3 years. Part time courses: Greenkeeping and Sportsturf maintenance NVQ Level 2 - Day Release. NVQ Level 3/4 Greenkeeping and Sportsturf Maintenance Day Release. Short courses: NPTC Modules, Chainsaw certification, Tree inspection, Horticultural Machinery, Safe Lifting and First Aid.



MERRIST WOOD CAMPUS OF GUILDFORD COLLEGE Worplesdon, Guildford, Surrey, GU3 3PE **Contact:** Joe Paulin Tel: 01483 884088 **Fax:** 01483 884001 **Email:** jpaulin@guildford.ac.uk **Web:** www.guildford.ac.uk **Information:** Part time courses: NVQ Level 2 Sportsturf college day release and work place visits/assessments at Merrist Wood, Crawley and the London Golf Club in Kent, Level 2 First Diploma college day release for those without qualified workplace assessors, NVQ Level 3 Sportsturf on-line, Level 3 National Award college day release for those without qualified workplace assessors, HNC Turfgrass Science and Management college day release over 2 years, HND day release 1 extra year plus a Top-up BSc Degree for HND graduates part-time over 2 years, plus various short courses including BTLIA Irrigation Certificate Course, throughout the year. Please contact us for up to date listings, qualifications and advice. Open evenings are held regularly at the campus.



MYERSCOUGH COLLEGE Bilsborrow, Preston, Lancashire, PR3 0RY **Contact:** Wayne Roberts Tel: 01995 642222/642305 **Fax:** 01995 642333 **Email:** mailbox@myerscough.ac.uk **Web:** www.myerscough.ac.uk **Information:** Full time courses: BSc (Hon's) Turfgrass Science, Foundation Degree Sportsturf Science - online option by distance learning, ND Turf Science & Sportsground Maintenance: National Certificate in Groundsmanship and Greenkeeping, also Sports Turf Mechanisation option: First Diploma in Greenkeeping; Turf Science: NVQ 2, 3 & 4 Greenkeeping Management delivered both in the work place and over the internet using the colleges 'Mollinet System'. Part-time courses NVQ Level 2 & 3 Greenkeeping and Sports Turf Maintenance (Day/block release or Fast track work-based training qualification). All higher education courses can be accessed on a part time basis.: FdSc / BSc Turf Science: FEPA Short courses. NPTC Certificates of competence in the safe use of mowers and turfcare equipment. Careers mornings monthly on Saturdays.



OAKLANDS COLLEGE St Albans Smallford Campus, Hatfield Road, St Albans, Hertfordshire, AL4 0JA **Contact:** Andrew Wight Tel: 01727 737080 **Email:** andy.wight@oaklands.ac.uk **Web:** www.oaklands.ac.uk **Information:** Full time courses: National Certificate in Greenkeeping and Sports Turf Management. HNC in Sportsturf. Part-time courses: leading to NVQ Level 2 & 3 Greenkeeping, Apprenticeship Training. Foundation degree starting in September '06. Short Courses: Pesticide, Chainsaw.



PLUMPTON COLLEGE Ditchling Road, Plumpton, Lewes, East Sussex BN7 3AE **Contact:** David Blackmur Tel: 01273 890454 **Fax:** 01273 890071 **Email:** enquiries@plumpton.ac.uk **Web:** www.plumpton.ac.uk **Information:** Foundation Degree in Horticulture (Sportsturf specialism) with effect from Sept 2006 start (subject to approval). National Diploma in Amenity Horticulture, National Award (Garden Design), First Diploma in Horticulture. Part time courses: NVQ Level 1; NVQ Level 2 in Landscaping and Sportsturf; NVQ Level 3 Landscaping and Sportsturf; NVQ Level 4. Also available are RHS Certificate and RHS Advanced; IOG National Technical and Intermediate National Diploma. Short courses are also available for FEPA spraying and chainsaw.



RODBASTON COLLEGE Rodbaston College, Rodbaston, Penkridge, Stafford ST19 5PH **Contact:** John Renshaw Tel: 01785 712209 **Fax:** 01785 715701 **Email:** john.renshaw@rodbaston.ac.uk **Information:** NVQ Amenity Horticulture (Sportsturf) at Levels 1- 4. Part-time and flexible study options. Short Courses: Pesticides, Chainsaws and safe use of equipment.



WARWICKSHIRE COLLEGE Moreton Morrell Centre, Moreton Morrell, Warwick, Warwickshire, CV35 9BL **Contact:** Andrew Turnbull Tel: 01926 318285 **Fax:** 01926 318300 **Email:** aturnbull@warwcol.ac.uk **Web:** www.warwcol.ac.uk **Information:** Greenkeeping Courses: Foundation Degree Sports Turf Management (3 year part-time with the option of an HNC after two years, some distance learning units) NVQ Level 2 & 3 Day Release and Workbased Option. City and Guilds Advanced National certificate Sports Turf - A level 3 qualification, 2 year day release. BTEC First Diploma Sports Turf. Short Courses: Spraying Certificates (PA1, PA2, PA6), Chainsaw Certificate; NPTC certificates; Tractor Driving, Mowing Equipment, Turf Maintenance Equipment. All training and assessment carried out in the workplace.



WRITTLE COLLEGE Chelmsford, Essex, CM1 3RR **Contact:** Registry Tel: 01245 424200 **Fax:** 01245 420456 **Email:** info@writtle.ac.uk **Web:** www.writtle.ac.uk **Information:** SPORTS TURF PROGRAMMES: Foundation Degree - Sports Turf and Golf Course Management, Honours Degree - Sports Turf Science & Management, NVQ Level 2 & 3 - Sports Turf. OTHER PROGRAMMES: BSc (Hons) & FdSc Horticulture, BSc (Hons) & FdSc Landscape & Amenity Management, BSc (Hons) Horticulture with Business Management, BSc (Hons) International Horticulture, BSc (Hons) & FdSc Horticultural Crop Production, FdSc Landscape Construction, MSc/MA International Horticulture, MSc Horticulture (Crop Production), MSc Postharvest Technology, MSc Landscape Management, First Diploma, National Certificate, National Diploma - Horticulture, NVQ Level 2 & 3 Landscaping, NVQ Level 2 & 3 Service Engineering (Agricultural & Groundcare Machinery), C&G Service Engineering Progression Award. SHORT COURSES: NPTC Chainsaw, Health & Safety plus many more.

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- National Certificate in Sportsturf
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- National Diploma in Sportsturf
- National Diploma in Landbased Technology

Higher Education Courses

- BSc (Hons) Turfgrass Science
- BA Top Up in Sportsturf Facility Management
- Foundation Degree in Sportsturf
- Foundation Degree in Sportsturf Online - (by distance learning)
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Email: enquiries@myerscough.ac.uk
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Epani

In the Shed

Greenkeeper International brings you 'In the Shed', a puzzle page to keep you entertained when the weather forces you in or for when times are slow.

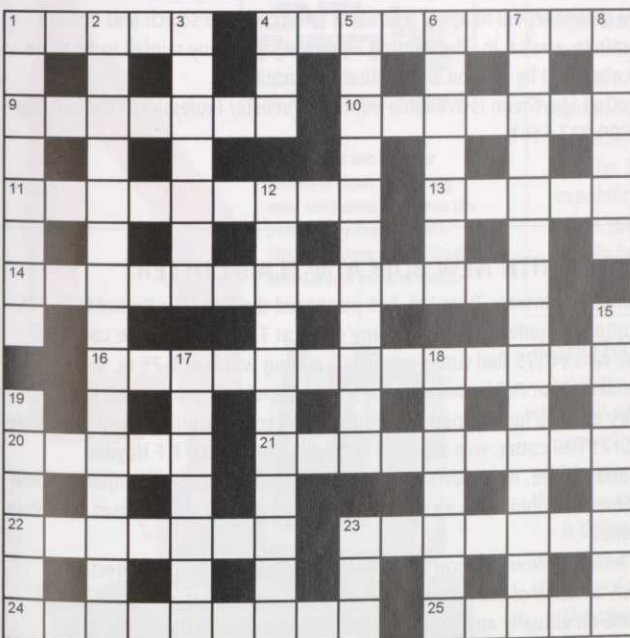
CROSSWORD - Compiled by Anax

ACROSS

- 1 Amusement, hilarity (5)
- 4 Any activity whose completion is very easy (4,5)
- 9 Force produced by differences in pressure (7)
- 10 Without invitation (7)
- 11 Weed with heads of small yellow flowers (9)
- 13 Golfer's favourite hole? Exactly! (2,3)
- 14 Batsman brought in tactically towards of close of play (5-8)
- 16 Related orally - in Latin, viva voce (2,4,2,5)
- 20 Centre; courage (5)
- 21 Name given to any inhabitant of the US & parts of Europe (9)
- 22 Type of easily peeled small orange (7)
- 23 Stone pillar, typically shaped as a dagger (7)
- 24 Person who takes on a professional role temporarily (9)
- 25 Type of mint herb (5)

DOWN

- 1 Hatred of women (8)
- 2 Strategic UK colony on southern tip of Spain (4,2,9)
- 3 Meshed protection for locks? (4-3)
- 4 Family group (3)
- 5 Betray (6-5)
- 6 Large open-air building, usually for sports (7)
- 7 Factor whose importance is not obvious (7,8)
- 8 Make small, restless movements (6)
- 12 Bird also called kestrel (7,4)
- 15 American Indian people, also called Iroquois (8)
- 17 Diving attire (7)
- 18 US actress, name given to type of life jacket (3,4)
- 19 Purgative medicine, also old term for doctor (6)
- 23 Rowing implement (3)



ANAGRAM

Hoylake golf course lies on the Wirral, located between these two cities.

CREST HE

LOVER LIPO

QUICK 'NINE HOLE' QUIZ

1. Who has scored the most runs in one-day internationals for England?
2. Which country has won the most Rugby World Cups since inception in 1987?
3. In what sport do players take long and short corners?
4. The 'Green Jacket' is presented to the winner of which sporting event?
5. What is the 'perfect score' in a game of Ten Pin Bowling?
6. With which sport would you most associate the commentator Ted Lowe?
7. Which of the following grounds have never staged an FA Cup final:
 - a. Stamford Bridge
 - b. Highbury
 - c. The Oval
8. Which player holds the record for the most career test runs?
9. Who scored Barcelona's winning goal against Arsenal in this year's Champions League final?

SUDOKU

Fill in the grid so that every row, every column and every 3x3 box contains the numbers 1 to 9.

	9	1	6	2				
4		5		7				
	2		1			4		
5	1						8	
			3		5			
	4						9	5
		8			1	6		
				8		5		2
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SPOT THE DIFFERENCE

Look closely at the pictures below and try and spot the difference between them. You should be able to spot six!



ANSWERS TO ALL THE PUZZLES ARE SHOWN ON PAGE 50

NEW PRODUCTS

TIDY UP YOUR TEES

New company, Tidytees, have introduced a simple product into the market place, to try and combat the ever-increasing problem of debris on the tees.

The product was put on trial for a six month period at Aston Wood, a West Midlands golf club, to measure the effects and acceptance by members and visitors.

The product 'Tidytees' consists of a solid hard wood bowl with a stainless steel metal spike to hold it in place and two drainage holes.

Tidytees are a simple cost effective solution that keeps the tee areas in pristine condition, whilst also reducing the cost of mowing the tee areas. No more punctures, damage to mower blades, and wasted time picking up broken tees.

For further information Tel: 0121 352 1200; Email Tidytees@aol.com or visit www.tidytees.biz for full details and information on how to obtain a free sample.



AVONCROP AMENITY PRODUCTS PROVE POPULAR

Iron Max and Iron Max + K, have proven to be very successful since their launch.

Unique complex iron formulated with the latest surfactant technology, makes these liquid Irons quick acting, with excellent longevity and colour improvement to all turf. Iron Max and Iron Max + K contain 8% iron making it one of the strongest iron products

available. In addition to ensuring even coverage, the surfactant acts as a dew dispersal, for a few days after application. All this is achieved at a low and economical application rate of 20 litres per Ha.

Both Iron Max and Iron Max + K provide a little organic nitrogen - reducing turf stress, and a package of trace elements along with humic acids - encouraging healthy turf with increased disease tolerance.

For further details contact your Area Representative or call Sandford Office on: 01934 820868 or Bracknell on: 01344 426600.



LOST GOLF BALLS - A THING OF THE PAST

Sanderson Golf announces the answer to every golfer's greatest frustration - lost balls. The Ballfinder Scout (TM) is a hand held electronic device that can locate lost balls up to 35 feet away.

Using the latest digital imaging and tracking technology to locate white golf balls hidden deep in the rough, Ballfinder Scout (TM) is fully endorsed by six-time major championship winner, Nick Faldo.

The device uses a video camera that can search up to 600 square feet in one second: that's almost 1/7 of an acre in 10 seconds. Each of the resulting two million pixels is scanned in nanoseconds and analysed. Once a golf ball is located, the Ballfinder Scout (TM) vibrates and blue LED lights direct the golfer to the spot where the ball lies.

Nick Faldo says: "At every level of golf, everybody is going to lose golf balls. With the Ballfinder Scout (TM), golfers are going to find their balls quicker, they'll play faster, have more fun and shoot better scores."

The Ballfinder Scout (TM) is available to golfers in the UK and Europe from Sanderson Golf Ltd. Orders can be made from the online shop at www.sandersongolf.com

BIONUTRIA LAUNCHES LIQUID FERTILISER FOR WATER BAN AREAS

Danish sports turf fertiliser manufacturer BioNutria, has launched a new product targeted at those clubs affected by water company drought orders. BioGolf StayGreen, combines the company's highly effective liquid fertilisers with wetting agents

John Quinn, Managing Director of the product's UK distributors said: "In order to maintain a course's tees and greens in the drought order areas, greenkeepers will have to keep up their feeding regimes and try to ensure that any rain that does fall is held by the soil for as long as possible. BioGolf StayGreen is a pre-diluted liquid fertiliser with a wetting agent, which will enable greenkeepers to apply a fertiliser which will not scorch and doesn't need rain to wash it in. The wetting agent will allow any rainfall to be more easily absorbed by the soil and reduce evaporation."

BioGolf StayGreen is available from Greenmaster Professional Groundcare on: 0800 027 6561.



BUSINESS BOOST WITH NEW BOBCAT® FLAIL CUTTER

Oxfordshire-based Robinson's Trees Ltd, has purchased the first UK's Bobcat® FC175 heavy-duty flail cutter. Mounted on the company's Bobcat T200HF high flow compact tracked loader, the new FC175 flail cutter provides a cutting width of 1.75 m. It extends the fleet of attachments that Robinsons uses for site and scrub clearance work for local authorities, country estates, forests, parks, amenities, golf courses, utilities and elsewhere.

The Bobcat FC175 flail cutter, was supplied by Wallingford-based R F Hayden Machinery Sales and Service. Robinson's Trees offers the Bobcat T200HF compact tracked loader and attachments for hire with an operator certified by the National Plant Operators Registration Scheme.

The Bob-Tach linkage allows vertical movements and oscillations in all directions, providing excellent flotation of the cutter main frame and ensuring that the FC175 flail cutter is easy to use on virtually any type of terrain and very close to trees and other obstructions.

For more information visit: www.robinsonstrees.co.uk



NEW TRACTOR

AL-KO's Garden Tractor range has expanded to include a new model, the T16-102HDH. This new tractor is powered by a Honda GCV530 16hp twin cylinder engine, producing high quality smooth running, as well as high cutter deck torque and drive wheel traction.

All AL-KO twin cylinder tractors have 102cm cutting deck, six-stage height of cut adjustment from 30mm to 90mm, high quality hydrostatic transmission, Xenon headlights, and a grass catcher capacity of 300 litres.

For more information on the AL-KO tractor range call Rochford GM on: 01963 828000 or visit www.al-kogarden.co.uk

NEW ISEKI COMPACT TRACTOR

Ideal for professional grounds care applications, Ransomes Jacobsen, a Textron company (NYSE: TXT), has introduced a new Iseki compact tractor.

Powered by a 16.9hp, three-cylinder diesel engine, the TM3160 Garden tractor, features four-wheel drive and differential lock, providing excellent traction when working on slopes or in wet conditions.



The gearbox provides six forward speeds and two reverse, ensuring the correct drive for any given application. The TM3160 also features a mid pto, ideal for driving a mowing deck and a rear pto for various mounted tools.

Peter Powell, Tractor Manager at Ransomes Jacobsen said: "This tractor is a

great package; it's not a consumer tractor that's pretending to be a professional machine, it's a purposed designed grounds care tractor, that will also appeal to private customers with large gardens and significant areas of land to maintain."

More information is available at: www.textron.com.

GARSDIDE SANDS LAUNCHES NEW LITERATURE

Garside Sands, a leading producer of specialist graded silica sands, has introduced an up-to-date products listing, to provide customers with a comprehensive guide to its full product range.

The datasheet provides the name of each product, size range (in mm) and product colour. Products include: dried; graded silica sand; filtration gravels; damp sands and a range of coloured sand. Garside sands are used in markets as diverse as: sports; water filtration; industrial and decorative applications.

To obtain a copy of Garside Sands' product listing, call: 01525 237911.

NEW SWIVEL HEAD FOR LONG-REACH HEDGE TRIMMERS

Viking takes the challenge out of trimming hedges, with a new 'swivel' head system.

Long-reach hedge trimmers are excellent for keeping tall or extra-wide hedges in trim. Viking, specialists in garden power tools, have introduced two new models to their range. The Viking Hel 700 has an overall length of up to 2.6 metres and the Hel 700 K is slightly shorter at up to 2.1 metres, both have a new adjustable cutting head, which can be set at varying angles to suit the user's working position and cutting plane.

For further information visit: www.stihl.co.uk



RAIN BIRD INTRODUCES THE NEW EAGLE 351B TEE SPRINKLER

Rain Bird, the leading irrigation equipment manufacturer, is launching its new Eagle 351B Tee Sprinkler. The 351B is designed specifically for use in block systems for tee, bunker and landscape area irrigation on golf courses.

Its robust construction means the 351B is far more durable than any other short-throw sprinkler, and to back up the Rain Bird promise of durability, the 351B is sold with a five-year warranty, provided it is installed on a Rain Bird swing joint.

The 351B's range is particularly impressive, spraying between 5.5 m - 18.8 m. To maximise this capability, the nozzle range is designed for both optimal distribution and close-in watering. The 351B sprinkler is fully top-serviceable - the internal assembly can be removed from the case, simply by taking out the snap ring on the top of the sprinkler.

For further information Tel: 01438 314583.

KUBOTA INTRODUCES A CLASS-LEADING HEAVYWEIGHT

Kubota, the world leader in mini excavators, has extended its range with the introduction of the short tail swing KX080-3. This high performance, 8 ton machine, launches in the UK in August.

Providing exceptional safety; durability; reliability; versatility and comfort, the KX080-3 offers a well-balanced arm and bucket, to provide the operator with unparalleled digging force. This allows the excavator to dig faster and more efficiently, in the toughest conditions.

It delivers a reduced rear tail swing radius that takes it into the tightest spots, coupled with improved machine stability. The rear overhang features cast-iron protectors to significantly reduce the chances of damage to the machine when working in restricted space.

The steel-core positioning and lug pattern on the rubber crawler has been designed to achieve a long working life and give outstanding durability and lower vibration when traveling.

For further information Tel: 01844 214500; Web: www.kubota.co.uk



NOW FITTED AS STANDARD

The new 8 ton Kubota KX080-3 short tail swing mini excavator, features the unique key-based 'ANTI-THEFT' system, now fitted as standard to Kubota minis





News from the Chief Executive

The deadline for the Spray Master competition came and went in June with sadly only a handful of applications arriving at BIGGA House. I find it a great pity that lack of interest from the Association's 6,500 members has resulted in the cancellation of this event leaving the sponsor somewhat disillusioned. Perhaps the chance to win a free trip to the GCSAA Show in Anaheim and some spraying equipment for the club was not a big enough prize! On a more positive note the BIGGA annual charity Golf Day at Aldwark Manor, was a great success with all tee times being taken. I would like to thank all competitors and sponsors for their support resulting in a surplus of £1,400 that will be donated to the Chairman's chosen charities that are Breast Cancer and Testicular Cancer research.

Although still over 6 months away, Harrogate Week 2007 seems to demand more and more time from everybody in the office. Over the coming months look out for details of how we intend to develop what is already considered to be the leading event in the industry. Working in partnership with the GTC, the R&A, the EGU, the AGCS and the PGA, we aim to provide much more education than ever before. While golf will always be the core theme, it is important that a clear message goes out that the event is not just for greenkeepers. No matter what your connection is with turf management, horticulture, club or stadium management, landscaping etc, there will be something for you, both in the exhibition and on the education programme. Watch out also for details of the free park and ride scheme that will be introduced in 2007, enabling amongst other things a greater freedom of choice for accommodation. The newly formed Harrogate Week Steering Committee debated the alcohol ban at its recent meeting. It was recommended to the Board that the bars at certain designated catering points be reinstated and the Board cautiously agreed to this for 2007.

The BIGGA website is currently being reviewed with plans for a major redesign on the drawing board. This will include on-line shopping, improved membership renewal facilities and an upgraded bulletin board. Headquarters staff will also have greater control over day-to-day content management, much of which at present has to be sub-contracted at considerable expense. If you have any suggestions for improvement of the website please let Rachael (rachael_p@bigga.co.uk) or Gemma (gemma@bigga.co.uk) in the membership office know.

I have been campaigning with the R&A for limited free access to the Open for members of our Association. Regrettably the Championship Committee has rejected the proposal on the grounds that a precedent would be set that other bodies could quote. Naturally I am disappointed with the outcome, however I will continue to discuss the point with the R&A in preparation for the 2007 event. BIGGA will once again have a marquee within the tented village and I hope that members and their guests will avail themselves of the facilities. I wish Craig Gilholm and his greenkeeping team at Hoylake every success for the event and I am sure that this is going to prove to be a popular Open venue.

Next month I will review BIGGA's working relationship with other organisations, the Association's membership recruitment plans and progress regarding the change to limited company status.

John Pemberton

SCOTTISH REGION

Ayrshire

The links at Southernness were in pristine condition and with a stiff wind, the course proved a stern challenge to the 44 in attendance. Our thanks to the committee, for allowing us the use of the course and facilities on the day. Thanks also, to the catering staff for a hearty meal and friendly service.

Results were as follows: First Class. 1. Phillip Dick, Dumfries & County, 36pts; 2. Denis Tweddell Turnberry, 33pts; 3. Steven Higgins, Ardeer, 31pts; 4. Keith McCartney, Dumfries & Galloway, 29pts.

Second Class. 1. Sid Mercer, Skelmorlie, 35pts; 2. Ronnie Bunting Ballochmyle, 33pts; 3. Martin Lothian, Turnberry, 32pts; 4. Paul Tulloch, Bogside, 31pts. Trade Prize went to Robert Bruce.

Should have more to report next time, until then I hope you all aren't enjoying the World Cup too much, as that will mean my team are out. Adios amigos

Any news or constructive criticism to denis.t@hotmail.co.uk or 07939 104701.

Dennis Tweddell

East

As I write this report in early June, summer has finally arrived, with sprinklers and wetting agents in great demand. Hopefully this will be the catalyst required to produce good putting surfaces. I am sure most of you will agree it has been a long time coming.

I have two weddings involving Section members to report this month. The first was held in the Borders on April 28, with Donald Campbell, Course Manager at Cardrona, marrying the lovely Lynne. I understand that quite a few greenkeepers were present on the big day including Robert Hogarth, who made the long journey north, from Dorset.

The second wedding was held on June 3 at the Holiday Inn in Edinburgh, when Peter Ormiston, Course Manager at Uphall' tied the knot with Elaine. Interestingly both the couples spent their honeymoons in Mexico - it must be the place to go these days. On behalf of the Section, I would like to offer the newlyweds congratulations and best wishes for their futures together.

On Wednesday, May 3, Thomas Sherriff & Co Ltd and Eyemouth Golf Club played host to the fourth running of the John Deere Team Championship.

21 teams from Lothian and Borders competed in a 3 player Texas Scramble and though conditions proved tough, the team from Gifford Golf Club consisting of J. Combe, G. Milne and N. McEwan, returned a superb 65 to pip Jedburgh Golf Club (66) and Duns Golf Club (67) to the title. In winning, Gifford will go onto the national finals on Tuesday, September 12, at the East Sussex National and hopefully onto the World Championships at Reynolds Plantation Resort, Georgia, USA.

Thomas Sherriff and John Deere, wish to thank all participating teams for taking part in a great day's golf, and our hosts, Eyemouth Golf Club, for the courtesy of their course and tremendous hospitality.

A big thank you is due to Ian Lauder, of Thomas Sherriff and Co, for the above report.

Finally, on May 24, my wife departed for Vancouver to visit her mother. The peace lasted approximately 48 hours, when our son arrived home with his usual collection of bin bags full of dirty washing. Come back Roz, all is forgiven - I mutter under my breath.

Until next month.

Mike Dooner

Northern

How's it going folks? The weather, as usual, has been pretty poor for May and early June. I think I speak for most folk in saying that growth has been patchy at best for greens and main play areas. Here in the northeast it's been cold and dry, then cold and wet for the most part, since early May. (Fantastic what an easy job we have and don't we just love it.)

By the time this report is in the magazine the Scottish national tournament will have been played at Leven Links in Fife. Let's have a good turnout from the North Section and clear up the prizewinner's table. I have never played Leven Links but Mike Dennis reliably informs me that this is a great course, and one which should produce a worthy winner. I am sure Peter Boyd will run a smooth ship as always on the day.

Results for the National Tournament will follow in the next issue.

I have spoken to Hugh Mclatchie about the 200 club and he mentioned that the response this year has been pretty poor. Hugh sent out cards to all members but there were many that were not returned or purchased for the year. This makes it very difficult for Hugh to manage the 200 club, and make it a success, if people can't be bothered to at least tell him if they don't want the card. (We all have mobile phones so let's start to use them) The 200 club is probably the main earner as far as funds go for the section and at £7 for the year is not much to find.

Ben Brookes, who is an assistant at Newmacher GC, has become a father for the first time. Aidan Alexander Brookes is the wee fella's name, so all the best for fatherhood Ben and all the toils that it will bring. Aidan's grandad is Brian Hunter, who works at Ellon GC and he is rightly chuffed to bits with the new arrival in the family.

Have any of you out there had a problem over the winter with Pitch marks on the your greens? We have suffered badly with this over the last few months and are still trying to eliminate the scarring that is made, because the members don't repair them. If anybody has any suggestions on what works for them let me know, because I hate ball marks on the greens.

That's about it for now, if you hear any news, let me know by emailing: grassman351@aol.com.

Cheers,

Robert Patterson

NORTHERN REGION

Sheffield

On May, 18 we held our spring competition at Doncaster Town Moor Golf Club. The day was sponsored by Pro-Turf, who I would like to thank once again for their support of the Section! Our thanks also go to Richard Stanley and his staff for the condition of the course, well done Richard. Thanks also go to Town Moor Golf Club for giving us the courtesy of their course. Thanks also to the catering staff for providing an excellent meal, which was enjoyed by all. Thanks to all other trade members who provided prizes.

The results of the day were as follows' the eventual winner was Simon Dye with a score of 36pts. Well done Simon!

1. S Dye, 36pts; 2. R Ullathorne, 35pts; 3. L Vardell, 34pts; 4. D Coop, 33pts, bb9; 5. R Jones, 33pts.

Our next golf day is on July, 5, vs Northern Section at Bradley Hall GC. The Summer Competition is on July, 10 at Serlby Park GC. The Autumn Competition is at Sitwell Park GC, on September, 5.

Whilst on the subject of golf I would like to thank Robert Needham for eventually tracking down and finding the missing golf trophy, well done.

Finally the committee is thinking of running a social event, if any of you have any ideas what this should be, feel free to contact me or Chris Astle on 01709548759 by the end of July so we can make a decision on what we are going to run or if there is enough interest.

Once again, if you have any news, feel free to contact me on either 07793 111845 or jv.lax@tesco.net

John Lax

North West

On May 18, the North West Section played the North Wales Section. The match took place at Sutton Hall GC. The course was in fantastic condition - very well maintained. If you have not played Sutton Hall it is well worth a visit. Anyway, the result was an emphatic win for the North West Section. Many thanks to Jeremy Hughes and all the North Wales lads, who contributed to a very enjoyable day - long may it continue.

If your club is considering splashing out on your old sheds or containers and is looking at what is available, look no further than Sale Golf Club. I believe Chris Hulme is the envy of us all, the reason - he has had a state of the art maintenance complex built. I haven't seen it, but from the reports there are not many better.

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As always, if anyone has any news or just needs a little bit of advice, please contact the Secretary, Bert Cross, on 0151 724 5412 or myself on 0151 289 4625. If you are on the World Wide Web, my e-mail address is jsheehan@blueyonder.co.uk.

Chris Sheehan

North Wales

At last the sun shines and keeps shining, as we role into July. A new name takes the role of Head Greenkeeper, at the tough undulating gorse filled layout course of Baron Hill, Paul Roberts - a proven greenkeeper, coming from the North Wales Links GC under the watchful eye of Course Manager Nigel Barton. Paul is keen to put his mark on greens, fairways and tees of this gem of a course. Paul, also a scratch golfer giving his best at regional qualifying events over the past few years, will not only bring a good greenkeeping background with him, but also a golfers eye to shape the place up, and we wish him luck in doing so.

A little further down the coast, and Martin from Caernarfon GC, has purchased himself a Hotel in the Llanberis Pass, a popular resort for fell walkers and climbers, so if you are in the area and need a bed with a full Welsh breakfast in the morning give him a ring (no black puddings by the way!) but I am sure he will find some if you ring ahead.

Down to Nefyn, the Pebble Beach of North Wales, and Patrick McAteer has had a bad bout of pneumonia that has kept him out of the 'ty coch' for a couple of weeks, we wish him well and say, don't get that too often Patrick as it is not very good for you.

The golf match, North Wales v's North West, was a huge defeat for the North Wales team, losing in all of their five matches, Our thanks go to Peter Sproston and his team for presenting the course and to Sutton Hall GC owner, Max Faulkner, for his hospitality.

Oswestry GC was the venue for the Spring Tournament, and a well presented golf course from Gareth Woosenham, Gary Barnfield and the team was bestowed upon us. The results were as follows: 1. Gary Barmfield (local knowledge you may say?) 2. Alan Kelsall; 3. Allen Lewis from Llanymenech, who just pipped his son Mat who came in 4th. Trade winner, was the injured Terry Adamson? And Nearest the Pins were Jez Hughes and Dave Gladwin, who came all the way up with his 1st Assistant Greenkeeper from Camarthenshire, in South Wales. We welcome him into the Section. The guest prize went to Oswestry's Secretary, P. Turner - 2nd was Howard Jones from Llanymenech. We wish to thank Oswestry club and the caterers for a superb steak pie meal, of which some missed out on as our numbers increased on the day, due to an oversight in the count but they got a nice bit of Gammon and chips, so all was well in the end.

The qualifiers for the National Championship are Gary Barmfield with the Best Nett and Allen Lewis with the Best Gross (a 74 with a double on the last! - how much time are you spending on the course Al?)

Well, it's Open golf time again up at the Hoylake links, and a great event is here in our Region, I know many of you that have been chosen for the BIGGA Open Support Team, but even if you have missed out this year, it is truly a magnificent event and not to be missed being so close to home. Or why not take a trip the week before to Conwy GC or Wallasey for final qualification, and support the venues in our Region, plus see some great golf.

Last month I attended the British Masters at The De Vere Belfry and would like to congratulate Kenny MacKay and his team for presenting a super looking Brabazon course for this event. Everyone I spoke with in the greenkeeping game, had nothing but praise on its condition, especially for the time of year and with the season starting a month or so late, well done guys.

Back to the coast and Abergele, as ever, in top shape as I spoke with Darren Anderson last week, he told me the new, or not so new now? greens, have improved a great deal especially over the last year.

Finally, down to Porthmadog & Harlech where reports always favour the links that look across the estuary at each other. It's a pleasure to be in the company of both Bronco and Kerry's humour, and close friendly rivalry - a way of life that never has to be admired, I just wonder how much of a threat they feel Dolgellau will be for them, now the new clubhouse is nearly finished?

See you next month

Mesen Cymru and Andrew Acorn

andrew@acorngolf.com



East Midlands

How lucky can you get! Our Spring Tournament this year, was held at Stanton on the Wolds Golf Club in Nottinghamshire, on May 24. For a week before and several days after, the rain never stopped! However, we managed to find a six hour gap where the sun came out and there was only a five minute shower on the day! Whoever organised that, thank you very much.

Our day was sponsored by David Smith, of Mansfield Sand Company, and was attended by 23 greenkeeper members, unfortunately trade representation was a little low because we had to pay a full green fee - but I guess this may be a sign of the times.

So, to the golf. The course, presented by David Bagshaw and his team, was in excellent condition and the winning scores reflected this. In first place, Frazer Harrison, of Willesley Park, beat Russel Allen of Horsley Lodge, on the back nine with 39 points. Third was Ross McCarthy with 37, while Adrian Porter and Paul Frith finished fourth and fifth, with 35 and 34 points respectively. Paul also won Nearest the Pin.

Mark Chamberlain, of Tacit, very kindly sponsored nearest the pin and a Longest Drive prize, and then went on to win the longest drive. Not feeling able to take his own prize, we had a booby prize instead which Dave Leatherland won with a massive 23 points.

This was a Section qualifier for the National Championship at Burton upon Trent GC, later in the year. Of entries received, the leading three players will have their fees refunded if they enter - so even if you finished down the field and nobody else enters, it might be you getting a refund!

Thanks to all of you for attending and may I wish Stanton all the best for the remainder of their Centenary Year. We had a great day.

Richard Barker

Midland

A couple of weeks ago, I was out working (yes) with another work mate. During the banter the following was presented, his father was a Pigeon fancier and one day he found a tired Homing Pigeon among his birds. The identification ring was dutifully read and the stranger's owner contacted, to which it was decided that the bird be posted back home. Is it me? A Homing Pigeon! Why not just rest, water and feed the bird, then throw it to the wind? Such gives a whole new meaning to - Pigeon Post.

For 54 years now the Midland Greenkeepers have played an annual match against the Presidents of Handsworth GC. We were all blessed by the evening's weather, despite the forecast. As usual the course was in

lovely condition, thanks to the caterers. Also, and perhaps more importantly, thanks to the opposition, for yet again making us so, very welcome, as headed by Mr T. Degge. Further more, our thanks to the long suffering Mr E Thomas for organising the Greenkeeping team and Mr A. Kite for his eloquent speech. The match was drawn, thus, the cup was retained by Handsworth. Well done and thank you.

You may recall that I reported on Kevin Booth's charity walk from Kidderminster to Taly-Bont, on the west coast of Wales, some 103 miles. It is with great respect that I am able to report that Kevin raised well over a thousand pounds for the St Richards Hospice in Worcestershire. A wonderful act, serving a real need. I hope your feet have recovered.

It is with only the hugest of effort that the IOSH Managing Safety Course has been set up. Such is - as you read last month, offered to us at a subsidised cost. Can clubs, or indeed we, afford not to embrace these very statutory requirements. Yes, in the guise of an Ostrich perhaps. Please contact the IOSH on 01562 632 143, or Paul Woodham on 07880 734 197 or email paul@ghgc.org.uk for further information.

It is with the greatest of pleasure that we are able to welcome four new members to our ever improving Section. Such being: A. Thomas; N. Harris; M.S. Turnbull and A. Harper. Anyone, whom disagrees with the prior statement, please let me know your views. Historical conjecture leads one to think that you shall not. Please...prove me wrong.

It now falls upon me to relay some very sad news both on behalf of the Section, and indeed from a personal view. Mr Mike Corbett (Western Farms, Abbey Mowers Rep) has suddenly passed away at the young age of 50. Sooty, as Mike was affectionately known, was a gentle man or integrity, honour and true professionalism. A very rare breed indeed. Our deepest of condolences to Mrs Corbett and the two sons. Lords is waiting Sir, and shall be a better place for you. A true gentleman. Good night Sir. Sean McDade.

SOUTH EAST

Surrey

Monday, June 4. Sutton and East Surrey Water Co - how can greenkeepers in your area thank you enough? Now at last, they have the opportunity, if they can't get any water, to take part in an experiment to prove a leading agronomist's theory, that without irrigation all the poa will die and the finer grasses will take over, leaving their club with perfect greens. Good luck to all who try, but remember 2006 might have the wettest summer on record, or could have the driest, but as sure as eggs are eggs, your members will shower (no pun intended) compliments on you, just as they did last year.

Clive Osgood, Bigga's South East Representative, is expecting to hear from police forces throughout the British Isles, also showering him with compliments as to his ability to beat the speed limit, jump red lights and generally disobey all motoring laws. Clive the law breaker? No Clive had his car number plates pinched from his own driveway, while he and his family slept the sleep of the innocent. Even his dog, which barks at the slightest sound, heard nothing and remained unconscious throughout this unlawful event. Clive said he would prefer that this embarrassing saga was not repeated and I am sure, that you, like me, will respect his wishes.

David Murdoch MG (Master Greenkeeper not Morris Garages) thank you for preparing Liphook GC as you and your team did for the spring tournament. The quality of the course and greens was superb, the weather

was wonderful and even your own members commented on the kind pin positions. The event was sponsored by Rigby Taylor and we thank them for the generous gift vouchers. Indeed Ron Christie was very grateful, for after over indulging slightly on the lager, while waiting for his lift home, his wife quickly forgave him when he insisted she should spend his vouchers on herself. The other prize winners were: 1. Tony Bremer, Dorking GC - well known pin up specialising in erotic poses for the nursing and rest home industry; 2. Dan Harding, Old Thorns GC; 3. Ron Chrystye, Addington Palace GC; Nearest the Pin. Paul Weston - retired, but still perfectly formed; Longest Drive. Ken Harding, Old Thorns GC - a gentle giant with a huge driver.

The latest future greenkeeper to arrive on the scene is Benjamin Varrow, born on May 31 at 10.48hrs and weighing in at 7lbs 14ozs. His mum Helen and dad Chris Addington Palace GC have asked me to tell you all, that the drinks are on them at the next golf day.

Brian Willmott

Kent

Afternoon chaps. I hope you are all enjoying the summer sunshine and that the water crisis hasn't affected you too badly. I'm afraid news has been very scarce this month, so this report is fairly brief. Regular readers of this column will already know however, that the focus here is on the quality of the written word rather than the amount of them.

Don't forget that we are holding our summer tournament at Mid-Kent Golf Club on July 11. If you haven't already received an entry form contact us via the website or phone to confirm your places. Remember our events are priced very reasonably at £25 for Course Managers and just £15 for assistant greenstaff. Everybody is welcome and almost guaranteed a great day with your colleagues from across the county.

A word of advice, should it be raining while the golf is in progress, having just played in the rain at Birchwood with Kev Morris, I feel it only fair to warn anyone playing in his vicinity of the peril they could be in. Standing on the 15th tee, Kev tried to launch a booming drive down the fairway, but succeeded only in hitting his ball 15 yards, the divot 20 yards and his driver flew at least 35 yards into the rough!! He blamed worn, wet grips so beware if similar conditions prevail at Mid-Kent! Sorry Kev! Keep smiling guys. Happy golfing.

Rob Holland

kentgreenkeepers.co.uk

Essex

Come on England! Hopefully, we will have progressed nicely into the semi-finals by the time you have read this and my William Hill account will be back in the black. This, of course, would be much needed after watching Sri Lanka come back to draw the test series with England, and no doubt getting the US Open completely wrong.

After the wettest May in 30 years, and the sporadic sunshine in June, the battle against the grass continues. No news to report around the Section this month, but as they say no news is good news!

One point of order to note, is that early one morning in May, while listening to BBC Radio 1 and the legend that is Chris Moyles, the phone in quiz was graced by the presence of a greenkeeper from the Essex Section. Excellent, I thought, it is about time the nation knew what an intelligent race of people we are. Five minutes later, and having scored five, my shoulders slumped - perhaps the listening viewers had a different impression of greenkeepers than me. Still, I won't name and shame!

P.S. Ben, the original members of the A-Team were Hannibal, B.A., Face and Murdock.



Peter Boyd
SCOTLAND & NORTHERN IRELAND
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Peter Larter
NORTHERN & MIDLAND
Tel: 01476 550115

Colne Valley GC up next for the autumn tournament. It promises to be a great event with a BBQ in the evening and smart casual dress code (heaven forbid).

Until next time

Be Good!

Richard Williams

07737 985735

**SOUTH WEST
& SOUTH WALES**

South West

I suppose it serves me right for harping on last month, about the lack of rainfall in the winter and early spring - it seemed to start raining on the 1st tee of our spring comp at The Kendleshire, and didn't stop until the end of the month. Suddenly, it was the wettest May since 1983. Now you mention it, I do remember May 1983 quite well. I was at Lilley Brook Golf Club, Cheltenham, at the time. Unbelievably, the heavy clay course was closed for all of April, and the first fortnight of May. When it finally did open, you could scarcely find your ball, even on the fairway. The little old 2-wheel drive Fergie and five gang mowers had sunk somewhere on the 5th hole, and didn't re-emerge until early June. We promptly spent all 1984 putting in about five miles of drainage - cue two significant drought

years. Anyway, enough of that happy reminiscing and back to the present. I'd really been looking forward to playing The Kendleshire, but my golf was awful, to say the least. From the moment an iffy tee shot at the 1st, soared over the shrubbery on the right scattering the gardening detail, toiling away near the ninth tee (happily they were watching and disappeared in a flurry of rakes and hoes) things went from bad to worse. Not the fault of the course however - Craig, Adrian, and the team had this challenging course in excellent condition, particularly so, in view of the difficult spring conditions. The results were: (0-9) - 1.R. Louisson; 2.C. Fudge. (10-19) - 1. A. Matthews; 2. T. Pope. (20-28) - 1.T. Humphries; 2. N. Bungay. Longest Drive went to Duncan Smith and Nearest the Pin to Terry Humphries.

Well done to all those who played and completed the round despite the rain, although I had forensically to reconstruct some of the cards to tot up the scores. (I didn't put mine in, in the hope they'd disqualify me and give me my money back, but no.) Thanks to our Patronage Partners for their continued sponsorship, and many thanks to The Kendleshire for hosting the event. We were made very welcome at this busy Bristol club, which was very much appreciated.

Back at Minch the County Championship played the last weekend of May was severely affected by heavy and persistent rain. At one stage it looked as if the whole tournament might have to be abandoned - the Centenary Championship, how embarrassing would that have been? Thanks to the tremendous efforts of the greenstaff, puddles were squeegeed away, bunkers were renovated, and the tournament completed

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- well done guys. Chris Wood, of Long Ashton, was the eventual winner scoring two under par for four rounds, the low score was 68, and our little protégé, Oscar Sharpe, 14 years old, four foot nothing, (voice not yet broken) came in sixth. Watch out for that name.

Is it me, or does this job get harder and harder instead of easier? Certainly within ten days temperatures rose into the mid 20s, and spring was overtaken by summer. The next competition is at Shirehampton, on July 27 - let's have a good turn out for that one, with a chance to win a place at the National Championship in October.

How about some feedback on your courses?

Paul Worster. 01453 837355. paulw@mgcnew.co.uk

Devon and Cornwall

For the past 36 years I have been very fortunate to travel most of Europe, some on business, but mainly pleasure, and mainly for golf holidays. During this time I have made a point of making my self "known" to the greenkeeping staff, who have always made me welcome. The more I travel, the more I realise that if one takes into consideration the average staffing levels at clubs in Europe, and their budgets, the more I appreciate the professionalism, dedication, and skills of greenkeeping in the UK. Not only are we blessed with good greenkeepers, but also some excellent Agronomists. So, can someone please tell me when a Head Greenkeeper invites an Agronomist to visit his course - usually for back up to support his course management plan for the year - that when the committee or Greens Chairman receive their report, supportive of the Head Greenkeeper, they sack the consultant, and try and find another consultant that will write a report, that they want to read.

Travelling around my area the past few months, I have become very concerned, at the amount of stress that a lot of staff are under at this present time. I can only speak about the South West, but because of the dry weeks, with a continuous cold North East wind and very cold nights, our season is six to seven weeks late. To give you an example, Cornwall normally prides its self on growing early potatoes - not this year, the early potatoes were six weeks late, even the rhododendrons were very late. In spite of this, committees were complaining that the greens were too slow, no growth, and bumpy for the start of the competition season in April. What the heck do they expect? No wonder greenkeepers have sleepless nights. To make matters worse, I have actually been to a couple of courses where the committee has banned aeration on the greens during the season. When members are elected onto a committee, do they really know what they are letting themselves into? I doubt it very much. All I can say is, don't let them get you down.

On a more civil note, would you make a note in your diary that the A.G.M will be held at the Launceston Golf Club, on Wednesday, October 11 2006.

If any member has any news worth printing in the magazine, please do not hesitate to contact me: Donovan O Hunt, Administrator Events Co-ordinator.

South Wales

Hi all. Wow, after a severely wet May, the first week in June has seen a mini heat wave.

Congratulations to Jim Mackenzie and his team for presenting the Roman Road course for another successful Wales Open, nearly a 59 on day one. The course was in great condition, considering the prep week was horrendous weather, 7.5 inches of rain fell the week before the event, however, it looked great on the telly.

To round off our winter activities, we had a visit to the Celtic Manor Resort to view the maintenance facilities - we were also treated with a guided tour of the new Wentwood Hills layout, currently under construction. We were transported in style as Jim Mackenzie, had arranged a fleet of Land and Range Rovers from his local dealership, to transport the 40 or so interested parties off road and around the new layout. What a treat it was and we thank Jim and his staff for their efforts, especially Carl and his engineers who stopped late to ensure we all had a good look around the machinery complex and maintenance buildings.

Hot off the press - the Coldra Woods at the Celtic Manor is being re-modeled, previously a 18 hole par 3+4 course.

Our recent and annual Spring Seminar took place at the Royal Porthcawl Golf Club, where 50 people attended the "Headland Amenity" sponsored event. A great day was had by all and we were treated to a variety of excellent presentations from Mark Hunt, Andy Russell and Dr Kate Entwistle, on subjects ranging from "Features of Spring growth"; Herbicide modes of action; Tank mixing - the do's and don'ts; "Turf grass diseases - an update" and the "sustainable approach to chemical and fertiliser usages".

During the extended lunch break we had Campey Turf Care Systems on site, demonstrating a variety of machinery, including the Dakota, spinner top-dressers and the Turf works range of attachments. Our sincere thanks to Headland Amenities and Campeys Turf care for their support.

Pencoed College Open day took place at the college on Saturday, June 24. BIGGA South Wales Section were in attendance as per usual, with a display and literature promoting the benefits of our association. P. Lacey and A. Macleod manned the stand from 11am until 4pm, with assistance from Paul Discombe, of Pencoed College.

Garnant Parc Golf Club hosted the Spring Tournament playing for the "Amtec Shield". After cancelling it last week the competition had to take place no matter what and unfortunately for the greenstaff, conditions were far from ideal. 30 hardy competitors took to the course, some not for long, some for longer than others and the rain held off for best part of the round. The carvery made up for the weather - a truly sumptuous meal was had by all. Many thanks to the Course Manager; Director of Golf; Operations Manager; General Manager; Cleaner; Pro; Mr Kerry (Joko) Jones and his team for their sterling efforts to get this fixture played - sorry I couldn't be there, old war wound playing up, but I heard the greens were excellent. The club made everyone feel welcome, even laying on complimentary fruit and water for the round. We hope that everyone enjoyed their first visit to Garnant Parc and that many return later in the year to appreciate how good a course (and tough) it really is.

Results: Winner of the "Amtec Shield". Peter Lacey, Pennard GC, 32pts, Bayer Jacket; 2. Kerry Jones, Garnant Parc GC, 27pts, Dell Printer; 3. Jamie Probert, 27pts, Sony play station; Best Trade. James Rees, Inturf, 25pts, Champagne; Longest Drive. Phil Williamson, Fairwood Park, Champagne and Nearest the Pin. Kerry Jones, Champagne. Our sincere thanks to Amenity Technology and especially Liam Galloway, for their support and sponsorship.

Former Regional Board member, Adrian Panks - former Course Manager of Llanwern Golf Club, has jumped ship from greenkeeping and taken up a new position recently, taking over from the infamous Colin Frost. Adrian recently started as sales representative for Sisis machinery, covering Wales and the West. We wish him good luck in his new position.

Taking over as Course Manager at Llanwern is local boy, Gareth Gibson, who has been my Deputy at Newport for the last 11 years, we wish him all the best in his new position - I will miss him greatly, but well done.

With Russell Anderson's departure, to take up his new position in Copenhagen, Cardiff Golf Club have appointed Nigel Harden - or "Dan" as he's known locally - to the position of Course Manager, Having worked his way to the top, as Russell's Deputy, we wish him well in his new post.

The Rigby Taylor Matchplay doubles Competition draw, took place on the day and was drawn by RT Representative Peter Griffiths. The preliminary round is:

Peter Holmstrom and Mark Wilshire v Andy Roach and Mickey Davies; Tony Horne and Martin David v Phil Williamson and Ross Davies; Chris French and Mark Davies v Dean Thomas and Richard Newton; Julian Bartlett-Jones and Ceri Richards v Stuart Jones and Phil Thomas; Joe Curtis and Craig Campbell v Kerry Jones and Jamie Probert.

Angus Macleod

NORTHERN IRELAND

I am writing this report in early June and at the moment, the weather has now moved into a very hot and sunny pattern, with temperatures in the mid to late 70s. Over the past three months in Northern Ireland, we seem to have had our annual rainfall crammed into ten weeks. Courses have flooded and spring maintenance programmes have been disrupted. Greenkeepers have been having a difficult time trying to maintain their courses to an acceptable standard throughout this period.

The Section's latest Golf Competition took place at Downpatrick Golf Club on May 30. Fortunately the weather turned out to be dry and sunny throughout the day. The course at Downpatrick has outstanding views across the county down countryside, taking in Strangford Lough and The Mountains of Mourne. Head Greenkeeper, Emmett Curran and his staff, had the course in magnificent condition. The competition sponsor for the day was Coburns or Bambridge. Many thanks again to David Eager and William Cartmill from Coburns, for the very generous prizes on offer.

The results were as follows: 1. Ken Henderson, Allen Park, 33pts; 2. Roger Warrin, Royal Codown GC, 32pts; 3. Damien Doherty, Malone GC, 31pts.

Many thanks to Coburns and Downpatrick GC, for making the day a success. Our next golf day will be held in early July, the venue and date are to be finalised.

I would like to welcome five new members to the section this month: Patrick Kelly; Mark Gorden; Anthony Corrigan; Roger Warrin and Christy Smith.

Well that's about all my news for this month, I just want to predict that England will win the World Cup by beating Brazil 3-0 in the final, with Wayne Rooney scoring a hatrick.

Ken Henderson

CHECK OUT THE EVENTS PAGE ON THE BIGGA WEBSITE FOR AN UP TO DATE LIST OF ALL THE HAPPENINGS IN YOUR SECTION AND REGION.

From Tournaments to Seminars, AGM's to Dinners it's all covered at www.bigga.org.uk.

If you have a BIGGA event that you wish to place on the Events Page contact Melissa at BIGGA HOUSE on melissa@bigga.co.uk or 01347 833800

SECTION NOTES INFORMATION

In order to improve the sending and receiving of Section Notes, where possible can all future notes be emailed to melissa@bigga.co.uk by no later than the 5th of the month prior to publication please.

Word limit for Section notes: 500-600.

You will receive an email back to confirm receipt of your notes. If you do not receive this confirmation please get in touch with BIGGA HQ.

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ANAGRAM

CREST HE - Chester
LOVER LIPO - Liverpool

A QUICK NINE HOLES

1. Alec Stewart
2. Australia
3. Hockey
4. US Masters
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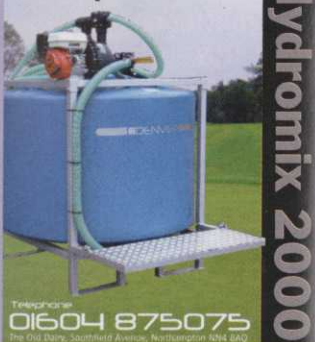


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Stewart Smith, Director of Golf, Cameron House Hotel, Loch Lomond, Dunbartonshire, G83 8QZ
or e-mail CV to: stewart.smith@cameronhouse.co.uk

West Hove Golf Club

Require

Deputy Head Greenkeeper

- Minimum 5 years' golf course experience
- Qualified to a minimum of NVQ2 or equivalent
- Spraying certificates PA1, 2 & 6
- Good supervisory and communication skills
- An understanding/current knowledge of H&S regs
- Salary negotiable according to experience and qualification + weekend regular overtime

Applicants should be hardworking, self motivated and committed with the necessary experience and skills to assist the Head Greenkeeper in leading the existing team.

Please apply in confidence and in writing or email with full CV to:

Megan Bibby, General Manager,
West Hove Golf Club, Church Farm,
Hangleton, Hove, East Sussex BN3 8AN
Or email: info@westhovegolf.co.uk

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Recruitment



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 - Qualified to NVQ2
 - Spraying certificates PA1, 2 & 6
- Good supervisory and communication skills

Please apply in writing with full CV to:

John Pyne, Managing Secretary, Cophorne Golf Club,
Borers Arms Road, Cophorne, West Sussex RH10 3LL



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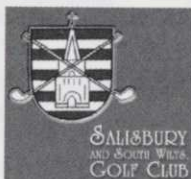
HEAD GREENKEEPER

The applicant should have a minimum 5 years greenkeeping experience and be qualified to N/SVQ Level 3 or equivalent and hold PA1, PA2 and PA6 certificates.

Applicants should also possess management skills to train staff and prepare and monitor budgets together with a sound knowledge of health and safety. An attractive salary & benefits are available to the successful candidate depending on experience and qualifications.

Apply in writing with a full CV to: The Greens Convenor,
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CLOSING DATE FOR APPLICATIONS 21st July 2006



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- PA1, PA2 & PA6 spraying certificates.
- Reliable, hardworking and have a willingness to learn.

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Please apply in writing with full CV to the Course Manager at:
Salisbury & South Wilts Golf Club, Netherhampton Road, Salisbury, Wiltshire SP2 8PR



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The following experience/skills are required:

- Recognised greenkeeping and agronomy qualifications
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- Spraying and chainsaw certificates
- Proven supervisory and communications skills
- Basic planning and project management skills

In return Worksop Golf Club offers the successful candidate (subject to experience and qualifications) a competitive package with the possibility of accommodation.

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Applications in writing with a full CV to: Mr Greg Evans,
Course Manager, Ealing Golf Club, Perivale Lane, Greenford, UB6 8SS.

Feature listing from July 2004

July 2004; Royal Troon Open Preview, Mowing, Disease Analysis

August 2004; Neil Thomas Memorial Golf Day; Open review; Royal Cinque Ports; Irrigation; Mowers (2); Saltext Preview; Best Practice; Top Dressing

September 2004; Toro Student Greenkeeper of the Year Preview; Ravensworth Golf Club; Turf Disease; Royal Holloway College; Tractors; The Greener Approach to Greenkeeping

October 2004; STRI 75th Anniversary; Kenwick Park GC; Ecology; John Deere National Team Championship; Best Practice; Top Dressing; Saltext Review; Aeration

November 2004; Toro Student Greenkeeper of the Year Final; The BIGGA National Championship; Comrie GC; CV Advice; Drainage; Construction; Fences

December 2004; BTME & ClubHouse Preview; Henley GC; Grass Identification; Trees; Environmental Winner; BIGGA Delegation; Interview Advice; College Listings

January 2005; Sir Michael Bonallack; Parkstone GC; Machinery Servicing; Ransomes Jacobsen Scholarship; Recycled Products; John Deere Team Championship; Tees; Negotiation Advice

February 2005; Harrogate 2005 Review; Meet the Chairman; Environmental Competition; Tyres; Coombe Hill GC

March 2005; Alwoodley GC; Difficult Areas; Drainage; Irrigation; Greens

April 2005; Augusta Syndrome; Thornhill GC; Difficult Areas Part 2; Turf Tonics; BIGGA Delegation; Rescue Grass

May 2005; Hellidon Lakes; Power Mowers; Pest Control; Cutting Heights Survey; Nozzles

June 2005; Minchinhampton GC; Aeration; Rigby Taylor Profile; Chemical Usage; Top Dressing; Jim Arthur Tribute

July 2005; Loch Lomond GC; St. Andrews; Mini Excavators; Disease; Finance; Scholarship

August 2005; Ramsey GC; Open Review; Quad Bikes; Top Dressing; BIGGA Golf Day; Anthracnose; National Championship Preview

September 2005; John O'Gaunt GC; Drainage Special; Security; Student of the Year; Massey Ferguson Profile

October 2005; Laleham GC; Dollar Spot; Utility Vehicles; Bio Oil; Pneumatic Fracturing; Best Practice

November 2005; Chipping Norton GC; National Championship; Course Construction; Fertilisers; Servicing

December 2005; Harrogate Week Preview; BIGGA Delegation; Environmental Competition; Rescue Debate; Irrigation

January 2006; Bearwood Lakes GC; Course Furniture; Nicklaus Design; Seed; Alternative Fuel; Disease Survey

February 2006; Cold Ashby GC; Netting; Chemical Fertilisers; Turf Construction

March 2006; Seed; Ride-on Mowers; Pesticides; Irrigation; Bio Stimulants

April 2006; R&A Conference Report; Scennie GC Profile; GCSAA Delegation Report; Wastewater

May 2006; Stock Brook GC Profile; Spraying; Aeration; Line Marking; Growth Retardants

June 2006; Disturbance Theory; Hand Tools; Surveying; Thatch/Scarification; Drought

Chairman's Column



It's Tournament Time

During May and June I have attended three major, televised sporting events, two being very successful with the other turning into great disappointment.



The disappointing event was, yes you have guessed it, seeing my beloved Leeds United not turning up at the Millennium Stadium and getting well and truly turned over. All credit to all you Watford boys and girls out there, you may have been out numbered two to one in terms of support but you deserved the victory.

It was my pleasure to visit two of the top Tour events held in the UK within a week of each other and the weather conditions couldn't have been more different. My first visit was to Wentworth for the BMW, meeting up with our Support Team who as always presented themselves in a true professional manner.

The deluge of rain presented Chris Kennedy and his team with some severe challenges that many of us wouldn't like to face for our Captain's Day let alone a major televised event broadcast around the world. As always the Wentworth team, lead by Chris, rose to the challenge presenting the course superbly and providing a great test of golf to some of the world's top golfers.

My second tournament within a week was the Wales Open held at Celtic Manor, with the weather being a complete contrast from the weekend before as the tournament saw dry sunny weather from day one. As we all know, you can't beat a bit of sunshine to show your course off to members and visitors alike but the dry sunny weather can cause major stress to the turf and Course Managers, especially with the high presentation required for a major Tour event, as usual Jim McKenzie and his crew took it in their stride and presented the course in fantastic condition. The event also gave me the opportunity to meet up with my hosts for the day Bernhard's, who have once again agreed to sponsor a BIGGA delegation of ten to the States and it is hoped that the GCSAA will be sending a delegation to the next Harrogate week.

Bernhard's must be congratulated for the concept to broaden our members' educational horizons that will now see 80 members benefiting from their experiences on the other side of the pond. Also it was a pleasure to network with a few more BIGGA

members at Celtic Manor, unfortunately I got myself, and Glen from the London Club, lost trying to find the new holes for the Ryder Cup. At least they didn't send out the search party!

Chris and Jim had different weather conditions to cope with before and during their tournaments and both teams surpassed the test and provided the world with excellently presented courses.

The countdown is well underway for the 135th Open Championship that gets underway at Royal Liverpool after an absence of almost 40 years. The Association's good wishes go to Links Manager Craig Gilholm and his team for a trouble free Championship. Our Support Team, with a mixture of new and experienced support team members will be on hand as usual to help in any aspect of course preparation which may be required of them and of course the management of the bunkers throughout the event. I would like to express the Association's thanks to you all.

Champion of BIGGA

This month my champion of BIGGA is Warren Bevan, Course Manager at Lancaster Golf Club. With the support of his Section he has organised local educational events in his area to bring members together on a regular basis, providing an excellent networking opportunity. I know Warren also invites non-members to attend and hopefully they will realise what they are missing, not being members. I know Warren is 100% behind our Association and hopefully this recognises his work.

Richard Whyman
Chairman



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Members may apply for an 80% refund of education and training fees up to a maximum of £350. Conditions apply. Call 01347 833800 for an application form.

BIGGA REGIONAL TRAINING

BIGGA provide quality education and training courses at a minimum cost thanks to the support of Golden and Silver Key Members who contribute to the Education and Development Fund. Call 01347 833800.

DISCOUNTED WORKWEAR

BIGGA have teamed up with ARCO, the leading supplier of workwear, safety clothing and maintenance products to offer members 20%*discount off a choice of goods. Call 01482 611773.

*Discount not available on selected products.

CAR LEASING

Driving a brand new car couldn't be easier. Bigga has teamed up with Lex FreeChoice to offer an exclusive scheme which allows you and your family members to drive the car you've always wanted at a price you can afford. Call 0800 419 930 and quote BIGGA.

CAR RENTAL

BIGGA have enrolled in National's Affinity Leisure Programme that offers members exclusive rates on car and van hire in the UK and on international car hire in over 80 countries. Ring 0870 191 6950 and quote A099084 for UK Car hire, A099085 for UK Van Hire and 8573290 for International Car Hire.

INSURANCE QUOTATION SERVICE

A quotation service is available to members on a wide range of insurance products. Call 01603 828255 and quote UniBG0306.

NETWORKING OPPORTUNITIES

When you join you are automatically given membership of one of the 27 sections around the country. As an active member you can attend golf days and other social events on a regular basis enabling you to network amongst others in the industry. Look at the 'Around the Green' section for contact details.

BIGGA WEBSITE - www.bigga.org.uk

Exclusive access to the Members area of the website. Interact with other greenkeepers on the bulletin board or check out the latest recruitment vacancies in the industry. For Greenkeepers and Student Members only.



The Intelligent Use of Water™



Water. It's what keeps the world alive. As the world's largest manufacturer of irrigation products, we believe it is our responsibility to develop technologies that use water efficiently. Over the past seven decades, our pioneering efforts have resulted in more than 130 patents. From central control systems and automatic shut-off devices to pressure regulating components and low volume drip irrigation, Rain Bird designs products that use water wisely. And our commitment extends beyond products to education, training and services for our industry and our communities.

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