

Rachael and Gemma, from the Membership Department, would like to welcome 47 new members to the Association this month and discuss the unique chance of being part of the BIGGA Greenkeeping Support Team.

Membership Update



BIGGA Needs You!

As you may have seen in the News Section of the February magazine we are currently looking for volunteers for the Greenkeeping Support Team that BIGGA will be providing at both the Open Championship, at St Andrews, and the BMW PGA Championship, at The Wentworth Club, this year.

This is a fantastic opportunity for you to help out at a major golf event, get close and personal to all the action and represent your Association.

BMW PGA Championship The Wentworth Club, May 26-29 2005

BIGGA will once again be providing a Greenkeeping Support Team for the BMW PGA Championship, at The Wentworth Club, May 26 - 29.

Chris Kennedy and his team will have the West Course in a testing state for the cream of the crop, and you can be there to witness it all from inside the ropes.

As with the Open Championship, a BIGGA Support Team member will be involved in walking with a match and raking any bunkers found by the players, as well as aiding the Wentworth green staff should a typical British summer do its worst.

Your involvement may well stretch further than you think, just ask David Miller, of Merrist Wood GC, after being allocated with Scott Drummond last year, on the third day. After having such a great third round the Scotsman, being the superstitious type, asked David to team up him and his caddie again for the final day. Swapping allocations for the final day's play allowed David to complete the request and aid in history as Drummond went on to shoot a 65 and claim a superb PGA Championship victory.

As a Team member at this event you will be responsible for your own transport to and from the course and there is no overnight accommodation provided.

Helping at the BMW PGA Championship will not hinder an application to be part of The BIGGA Open Championship Support Team.

Applications for the BMW PGA Championship Support Team should be sent to: Clive Osgood, BIGGA Regional Administrator, 34 Howard Close, Walton-on-the-Hill, Tadworth, Surrey, KT20 7QF

Or for more information, contact Clive on 01737 819343.



The Open Championship St Andrews, July 14-17 2005

As always, the Open Championship is the golfing highlight of the year and the 2005 Tournament, which is the 134th Open, is to be held at St Andrews, the home of golf.

Ewan Grant, Gordon Moir and their St Andrews' greenkeeping team will be at the heart of the action and you can be a major part of it all by becoming a member of the BIGGA Greenkeeper Support Team.

Members of the team will be involved in all sorts of activities during the Championship, including course preparation, such as raking the course's 112 bunkers before the start of play each day, evening course repair and aiding the St Andrews' greenkeeping team as and when needed.

The major responsibility of a BIGGA Support Team member is to walk with a match and rake any bunkers found by an unfortunate player.

The team all meet the day before the Tournament starts and each member is given their kit, which normally includes polo shirts, caps, waterproofs and the magic armband that allows you inside the ropes. Once all stocked up for the four days ahead the entire team are taken to the course to meet with the greenkeeping team and learn in which style to rake the bunkers during the Championship.



When not out with a match, BIGGA has its own marquee, where greenkeepers and guest can relax, watch the action on TV and get refreshments.

Transport, accommodation and meals are all provided during the Championship, but it will be the team member's responsibility for travel to and from their home to St Andrews.

Only full BIGGA members are eligible for selection onto the Support Team and to apply write to: Scott MacCallum, BIGGA HOUSE, Aldwark, Alne, York, YO61 1UF.

For further information contact Scott on 01347 833800 or via email: scott@bigga.co.uk.

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Benjamin Lindsay, Ayrshire
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Brad Russell, Ayrshire
John Golby, East Scotland
Nicholas Connell, West Scotland
Snorri Vilhjalmsson, London

ASSOCIATE MEMBER

Jerel Reynolds, USA

MARCH'S MEMBERSHIP DRAW WINNER

Just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a draw to win a FM DIGITAL SCAN RADIO/ALARM CLOCK, with a detachable speaker and headphones.

Our congratulations go to Marc Rossiter, from Tall Pines Golf Club, who wins the last 0.5 litre isolating flask.



NEW PRIZE

Course Feature



▲ Course Manager, Philip Taylor (left), and Head Greenkeeper, John Goldthorpe

An Old Master

Scott MacCallum visits Alwoodley Golf Club, a superb heathland course with an impeccable pedigree.

There are some jobs where you wouldn't be thanked for any supposed improvements you might like to introduce. For example the Director of Yellowstone National Park in Wyoming, USA, would be fed to the grizzly bears if he were to install a roller coaster straddling the Old Faithful geyser, while the Curator of the Louvre Gallery, in Paris, would face the guillotine if he brought the Mona Lisa "up to date" so she sported low slung jeans, a cropped top and a pierced bellybutton and eyebrow.

Philip Taylor and John Goldthorpe, Course Manager and Head Greenkeeper respectively of Alwoodley Golf Club in Leeds, know better than to fall into those traps.

Like the enigmatic portrait which hangs in that Paris gallery, Alwoodley is a masterpiece which requires little or no tweaking. That said, finding the delicate balance between meddling and neglect is not always an easy task although, in Philip and John, Alwoodley has a team that instinctively knows what is best for a course which has a pedigree to match anything in the country.

Ask any given group of golfers which one course in the world they'd love to play more than any other and I can guarantee that the name "Augusta National" will crop up.

Well, Alwoodley was laid out by Harry Colt, a highly respected golf course architect from around the turn of the last century, and Alwoodley's first Secretary, Dr Alistair MacKenzie. If his name rings a bell, it should because a few years after making his name as a golf course architect in the UK he left for the United States where he linked up with Bobby Jones to design Augusta National.

Although Alwoodley was one of the good doctor's early forays into golf course architecture it is one of the finest courses in the country. Regularly ranked in the top 50 by national magazines, it is also rated the sixth most difficult course in the country.

"We're not particularly long but it is very tight. There is a lot of gorse in close proximity to the fairways and greens as well as a lot of heather. The greens are very well bunkered and once on them there are many slopes. We're also easier in winter than in summer when the rough comes up to chest height in some areas," said Phil, by way of explanation.

Former Ryder Cup Captain Mark James often practised at the club when he lived locally and he played with Phil not long after he took over as Course Manager 15 years ago.

"He said that he could always tell when he was in the rough at Alwoodley. If, when he got down over a shot, it was tickling him under the chin, he knew he was there," laughed Phil.

Occasionally members ask him to cut areas back but if they were to remove too much it would water down a course which showed its teeth to BIGGA's finest at last

year's National Championship. However, Alwoodley is not so cruel to its members as to have them play a course which they can't get round. As well as the traditional tee complexes certain holes have Veteran/Junior Tees which take the longer carries over heather and gorse out of play.

"When you get in the rough at Alwoodley, Ganton or any really difficult course, if you've got any sense, you just take a sand iron and hit out sideways," is his advice.

In his time at the club Philip has completed two major projects, neither of which has impacted on the look of the course but both have significantly improved the playability.

The first was to overhaul the entire drainage network as the original drains had either collapsed or were full of tree root.

"I remember walking down the 8th with the then Chairman of Green and it was like a lake and you couldn't do a thing with the greens. It was there for all to see," recalled John.

Drainage consultant Barry Cooper was brought in and he designed a programme which White Horse Contractors carried out in conjunction with Philip, John and the team.

An expensive operation but the club had been extremely shrewd and sold off the nine acre practice range to a house developer and purchased some agricultural land adjacent to the course for a replacement range.



"The old range was soft and in need of draining itself so it made sense to get rid of it and the money the club made was then put to good use," said John, who added that the first thing that the club did with its financial windfall was to build a new maintenance facility.

Carried out in an eight week period during one of the wettest summers for years, the new drainage included a 100mil pipe to every green which was left so the team could plug into it where they discovered a need.

With the work done and the members being extremely patient while the course was disrupted everyone moved on in a spirit of genuine optimism only for the winter months to provide a real shock.

"We were twice as wet as we had been before the work was done, the reason being that the new drainage hadn't started working coupled with the fact some of the old drainage which hadn't been seen had been damaged," said Philip

"We had to dig holes and connect the old drainage to the new and once the soil got some structure back it started to pull," he explained.

He also recalled an attempt to speed up the healing process to the turf which didn't have the desired results.

"We tried some liquid sod - pregerminated seed mixed with fertiliser, fungicide and papier mache - which we sprayed over the drainage lines and which, if kept moist, is supposed to germinate within four days.

"We thought it would be ideal so we sprayed it on. Then we had such a thunderstorm that it all washed away into a big pile. So that was no good," he sighed.

Now the course drains beautifully and as Philip puts it: "You could walk down the 1st in carpet slippers and still have dry feet by the time you'd finished."

The second project, carried out hard on the heels of the drainage work, is perhaps an even better example of the careful way the stewardship of Alwoodley is carried out.

The greens were thatchy and in need of work and while Philip's initial wish had been to improve them by the tried and trusted mechanical approach it soon became apparent that a more drastic approach would be needed.

"We decided that we needed to rebuild the greens to a USGA spec and we also agreed that we would put them back as close to how they were as possible apart from the 15th which had been altered anyway and where we tried to get back to MacKenzie's original design.

"It was never an issue. Nobody could fault the way he'd designed them. We and the members thought that it was such a special course that we didn't have a reason to change as I don't think we could have made them better," explained Philip.

"We could have made them easier from a greenkeeping point of view and given ourselves more pin positions but, for example, when you get onto our 11th green which goes from front to back and you've a putt across the green which you've got to hit up there to get down there it's different isn't it?" said Philip, pointing out the line of his imaginary putt.

Jonathan Tucker, the STRI's architect, was contacted to engineer the project - as Philip said there was no real designing involved, while Global Surveying lazer measured every green at one metre intervals to ensure they could be re-laid as accurately as was possible. The rootzone was supplied by Mansfield Sands after a frustrating long search to find a product which met USGA specifications.



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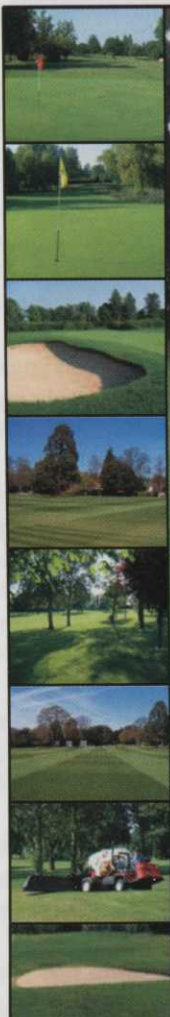
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Course Feature

The success of the new greens comes from the fact that, one, they don't flood like they used to, but also that you certainly can't see the join.

The pair, in conjunction with then Chairman of Green, Peter Gilbert, have also been instrumental in the removal of many of the trees on the golf course to return it to its heathland roots and improve some of the vistas on the course.

"Peter Gilbert was a strong person and an excellent Chairman of Green and he had a lot of input into the major jobs," said Philip.

John has taken care of the bracken while the heather regeneration is another on-going job.

Peppering the conversation with Philip and John comes references to the Alwoodley members and what a fabulous place Alwoodley is to work. John is proof of this, having just two weeks before taking delivery of a carriage clock to recognise 25 years with the Club.

"It is one of the best clubs in the country and they are absolutely superb people to work for," said Philip, a point reinforced by John.

"We had the same Chairman of Green for 16 years and the only thing he asked us to do in all that time was to put in a stile and remove a few thistles."

The club, which has a membership of just over 450, know that if you have the right people in post saying little is the best way to get results.

"The responsibility to look after the course does put pressure on you more than having someone telling you what to do. We try not to give people anything to complain about," said Philip, and the two of them obviously have a great feel for the golf course and an eye for detail when it comes to preparing it.

"If you have an eye for detail and keep on top of the job you are not going to have much grief," said John, who retires in a couple of years, fittingly, in the Club's centenary year.

To mark the centenary the Club will host the British Mid Amateur Championship and by then the bunker renovation programme should be near completion - another occasion when Dr MacKenzie's work is being polished rather than changed.

"In the 60s the Club decided to roll the bunker faces over. I don't know why but a few more people are doing it now but we go to the stage that we feel it is wrong. Take the 1st for example. You can stand on the tee and although you can see the face of the fairway bunker you can't see the sand and you should be able to because that's what puts the terror into you," said Philip.

"It was Mackenzie's philosophy that you should see some sand so we started to redo the bunkers around three years ago. John did some of the smaller ones and we will get contractors in for the larger ones. I always like to get experts in wherever possible."

It's that sort of attention to detail which ensures Alwoodley's place near the top of the golfing tree to the extent that perhaps, rather than call Alwoodley the Augusta of Leeds, we should be describing Augusta as the Alwoodley of Georgia!



▲ View of the Clubhouse from the 17th



A Penny Saved...

It's still early in the new year, but if you are a greenkeeper or Golf Course Manager, it's likely your workload already seems to match the busiest time of the past year - and you are not alone. Being extremely busy even in what could be considered the 'off-season' is a trend that has been developing in most golfing countries around the world over the past 12 years.

*Continue
to learn*



Greenkeepers and Course Managers are being asked to do more and more with fewer resources, and are expected to maintain top-quality golf courses that meet the consistently high and rising, I daresay expectations of paying golfers and private club members.

This is a significant challenge that can be examined by starting with the question: "How can you maintain your golf course and operation at a high standard, while required to work within budgets that are flat or declining each year?"

Unlike your resources, golfers' expectations have not diminished. They still want and demand a great 'experience' or 'value' for their money. What has diminished is the amount of revenue golf courses are able to generate. The reason for this revenue decline varies from one country to another, but among the factors affecting golf course revenue can be the economy, societal or political issues, or demographic shifts of a nation's golfers.

Whatever the reason, the result is that you are left facing the challenge put forth above. Lower revenues translate directly to lower operations budgets, which can directly impact how well you do your job and, in the end, the appearance and playability of the golf course.

So our focus here will be on **'How to do more with less.'** This will involve a close look at where irrigation budgets are spent and will include identifying opportunities for improvements or savings.

GOLF BUDGETS: A DOWNWARD TREND

The National Golf Foundation (NGF) has published data supporting the conclusion that there has been a general trend of declining budgets over the past 10 years. Most greenkeepers I've spoken with have had to come up with creative ways to deal with this. Additionally, the worldwide golf construction industry has seen a shift from new golf course construction to increased renovation construction on existing courses. Today, approximately

two-thirds of all golf course construction is remodeling or renovating.

This naturally makes us ask Why? Why less new construction today and, instead, increased investment in renovation of existing irrigation systems? In short, the answer is supply - the number of courses and demand - the number of rounds being played.

While the number of rounds of golf played has stayed relatively constant over the past 25 years, the number of golf courses has increased greatly in that time. This has resulted in a reduced need for new courses, and it has brought about greater competition between the existing golf courses for golfers' business. In many cases, this competition has led to price battles, which makes it harder to show operating profits and leads to tightened budgets. Working within tighter budgets, greenkeepers face greater challenges in maintaining great looking, great playing golf courses.

EFFICIENCY: A BUDGET STRETCHING TOOL

It can be extremely difficult to generate additional revenue, especially in such a competitive marketplace where golfers can 'price shop' for the best perceived golf value.

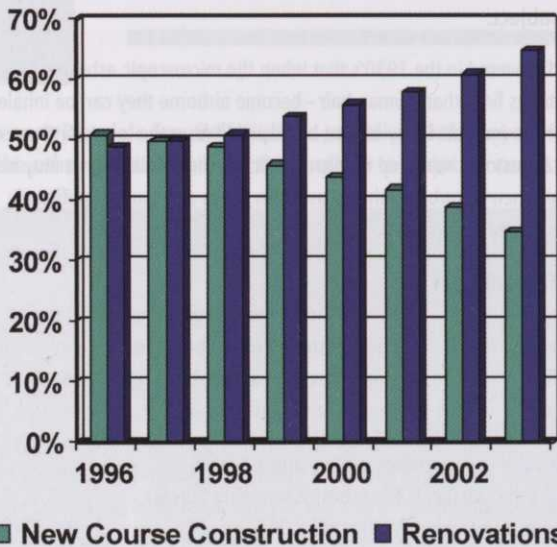
So instead of seeking greater revenue, I suggest you initially focus on maximising the return on your expenditures. I recommend that you find ways to 'stretch' your budget to its fullest, and the primary way to achieve this is through efficiency.

Efficiency is the main benefit produced by the renovation of a golf course's irrigation system. Increased operating efficiency reduces operating costs and lowers the consumption of resources such as water and electricity.

Improvements in golf irrigation efficiency can be measured and are reflected favorably in a greenkeeper's budget. This measurability is a significant reason why more and more courses are considering, or pursuing, irrigation renovation.



Kenne James looks at how making the most of your resources can have a significant impact on the bottom line



Consider: A renovation of a golf course's irrigation system may result in the single largest savings and also be the most productive change that can be made to a golf course.

Hard to believe? Well, most of us either don't have the time to evaluate our course's irrigation system thoroughly, or we think our systems are fine and operating effectively. What we may not realise is that if an irrigation system has not received good annual maintenance, or is 10 years old or older, it is most likely not to be as efficient as new technology and practices allow.

Yet many would ask: "So what? How much difference can there be between my aging system and a renovated, more efficient irrigation system?"

Take your pick of answers, choosing from among 'significant', 'dramatic' and 'quite possibly amazing!' Take a look.

MEASURABLE SAVINGS

When you consider that nozzle efficiencies have improved 10% or more in the last 10 years, and computerising a non-computerised system may result in another 15 to 25% savings due to improved efficiency, the difference made by renovation can be substantial. In fact, for many golf courses, it may be the difference between profit and loss.

Let's look at an example of what just a 15% gain in efficiency can provide. Here are eight possible benefits that could result from optimising sprinkler system efficiencies.

Start with water consumption. A 15% more efficient coverage pattern due to upgrades in sprinklers, nozzles, spacing, etc., can result in a 15% reduction in the (1) COST of water. Using 15% less water will result in saving approximately 15% of the (2) COST of the electricity required to pump the water.

Next, consider the maintenance expense of the entire irrigation system. One could argue that if you

use the system 15% less, the maintenance expenses, including pipe breaks, nozzle clogging, valve rebuilding, pumps, etc, will be about (3) 15% lower. A benefit to the golfer is that 15% less maintenance could result in (4) greatly reduced 'Ground Under Repair' issues. A further benefit to the greenkeeper is that his (5) labour cost will be lowered and his time will be freed up, allowing him to work on the many other projects that await him. The golf course itself benefits in many ways, the first of which is that the same irrigation system being used 15% less will probably last 15% longer. (6) This translates to getting more for the same investment.

The last two benefits are probably the most important. Higher efficiency watering patterns mean that you are not over-watering or under-watering as much - which is critical to promote the (7) optimum health of the turfgrass. Isn't this what our work is really all about? Isn't it our goal to produce and maintain the best looking, most playable golf turf? Efficiency helps us to achieve this goal, and it's efficiency that allows us to achieve it, while reducing our operating costs.

Finally, healthy turfgrass, the elimination of wet and dry spots and less 'Ground Under Repair' all contribute to a better looking, and most likely, a better-playing golf course. The golfer who enjoys a better experience on your course will be more likely to play more rounds at your course. This golfer is also more likely to compare your course to other local or regional venues and to tell his golfing friends about the high-value experience your course provides. (8) This may result in your course's ability to charge higher fees and get more rounds, producing more favorable financial results.

By assessing your golf course's irrigation system, you focus on - and, I hope, improve - its efficiency. You can see by the benefits listed why the topic of efficiency is not just very important, it can be the critical difference between success and failure. Efficiency is all-important when it comes to a proper irrigation system. It can also be a measure of the greenkeeper's success. It's hard to do anything but compliment a better looking golf course that is maintained on a lower budget.

Kenne James is Senior Marketing Manager - Golf Irrigation, International Business, The Toro Company



Asbestos - What's that got to do with golf?

Tutorial Nine

I mention asbestos and I am sure all of the greenkeeping fraternity and Secretary/Managers are thinking, "what's that got to do with me". Well let me see if I can shed some light on the subject.

LEGISLATION

Just over six months ago, on May 21, 2004, tough new asbestos regulations, Control of Asbestos at Work Regulations 2002 (CAWR 2002), came fully into force in England and Wales. This followed an 18 month lead in period designed to encourage and cajole commercial property owners, tenants and managers to assess proactively the risks from residual asbestos in their buildings.

DUTY

So where does a golf club fit in. Each and every golf club in the country has a legal bound duty to develop an 'Asbestos Register' which is designed to list all contents of asbestos in their premises and the type of asbestos it is.

SOME BACKGROUND ON ASBESTOS

Asbestos is not always an immediate hazard. In fact, if asbestos can be maintained in good condition, it is recommended that it be left alone and periodic surveillance performed to monitor its condition. It is only when asbestos containing materials (ACM) are disturbed or the materials become damaged that the risk to exposure is increased. When the materials are damaged, the fibres can separate and may become airborne.

It was discovered in the 1930's that when the microscopic asbestos fibres - up to 100 times finer than human hair - become airborne they can be inhaled. The fibres are so inert that they cannot be dispelled from the lungs, and can cause cancer. Asbestos is made up of microscopic bundles of fibres that may become airborne when disturbed. Inhaled asbestos fibres can cause significant respiratory health problems.

TYPES OF ASBESTOS

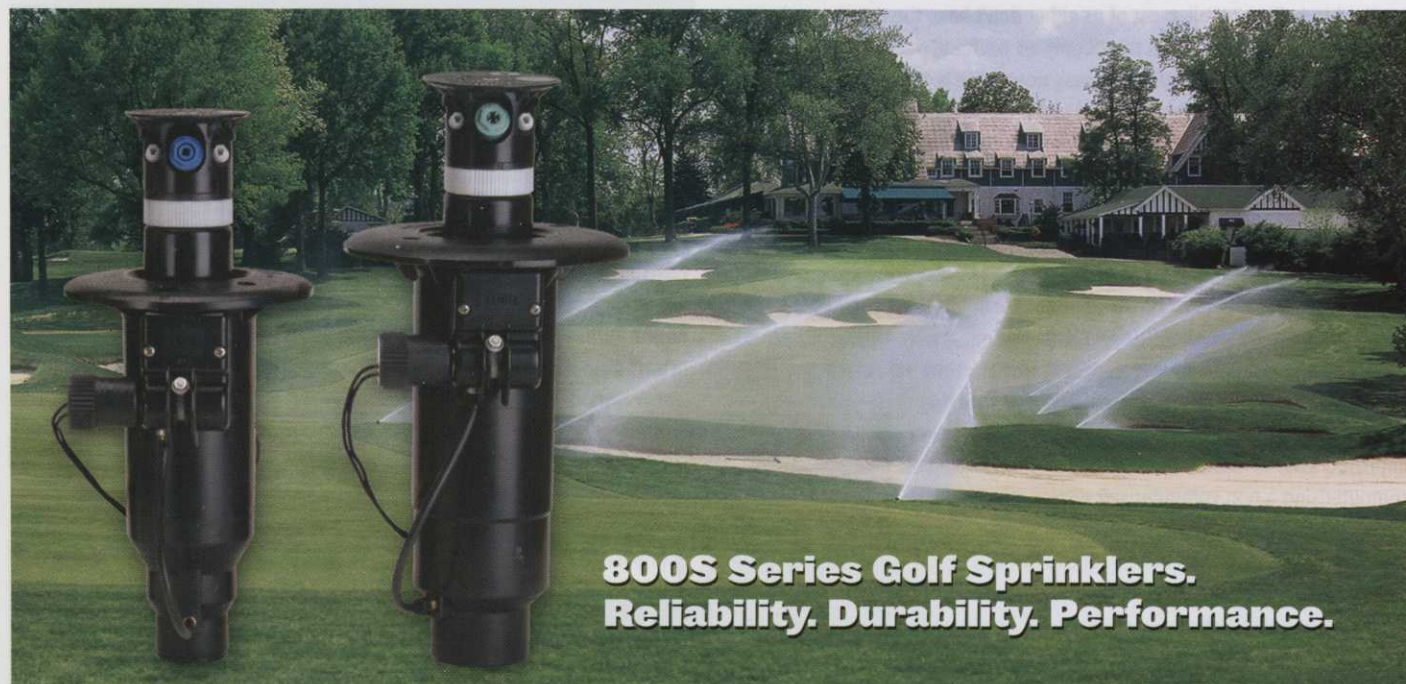
Chrysotile	White asbestos - Not as highly dangerous.
Amosite	Brown asbestos - Highly dangerous.
Crocidolite	Blue asbestos - Most dangerous type.

WHAT DO GOLF CLUBS NEED TO DO?

1. Find out if your premises contain any asbestos.
2. Assess the risk (i.e. Is the asbestos releasing fibres?).
3. Make a plan to manage the risks.
4. Generate the asbestos register and keep it on file.

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Greens Go Hollow Core



Tony Mears, Course Manager at Dinsdale Spa GC, and Henry Bechelet, Turfgrass Agronomist, STRI, look at the establishment of a new green from hollow tine cores.

This year at Dinsdale Spa Golf Club we established the cover of a newly constructed USGA type green using hollow tine cores taken from the other greens. We used this method to maintain consistent playing surfaces across the course.



▲ Digging out the pit in ideal conditions

By way of background, Tony has been a Greenkeeper for 29 years and Course Manager at Dinsdale Spa Golf Club since 1981. Henry has been in the industry since joining the STRI in 1991 and Agronomist to Dinsdale Spa GC since 2001. Over the years, we have developed a good working relationship. We maintain regular contact and discuss all aspects of the course maintenance. This case study is a good example of how the relationship between a greenkeeper and agronomist works.

Dinsdale Spa Golf Club was formally founded in 1910, although the course had been in existence for some years before. The course is relatively flat, parkland in nature, and is set upon a heavy clay loam soil. In recent years, a great deal of developmental work has been undertaken to improve the condition and quality of the course. The club has embarked on a rolling programme of greens reconstruction to improve their year round playability and additional land has also been purchased to increase the yardage of the course.

THE PREVIOUS PROGRAMME OF GREEN REPLACEMENT

Tony and his team have been reconstructing the greens since 1997. Each year at least one of the original clay based greens has been replaced with a new sand based construction. The new greens have all been constructed according to the USGA Method for Golf Green Construction (1993).

Tony has managed to source the same materials over the years to keep the new greens consistent with each other, the rootzone came from Bathgates. The work is always carried out in-house apart from bringing in a single contracted digger driver for excavation and placement work. The Dinsdale greenkeeping team are now highly skilled at new green construction. This has enabled the successful development of the new

greens at a reasonable cost. The reconstruction costs have always been around £15,000 - £16,000 per green.

Until now, the new greens have all been surfaced using the turf lifted from the existing green. This was done mainly to retain a consistent set of surfaces across the course. The sward comprises a good blend of bent and annual meadow grass species. This provides good playing surfaces and is quick to establish on a sand based rootzone, if managed correctly. If laid in October the new greens are ready for play by the following May.

In general, this programme of replacement is proving very successful and will continue until all of the soil based greens are reconstructed. The all round quality of the new greens is far superior to the ones they replaced.

THE DEVELOPMENT OF NEW LAND

As already mentioned, the length of the course has been an issue - 6090 yards, Par 71, SSS 69. To improve the layout and yardage it was decided to extend into an adjacent field. A golf course architect was engaged before purchasing the land to outline the potential for its development and the necessary work and costs involved. After consultation with the members, the 4.5 acre field was purchased in 2003 to be used in the development of two new holes.

The new land development required the construction of two new greens with the luxury of a couple of years for establishment. Once again, they would be constructed to the USGA guidelines but since both greens were totally new, we did not have any existing turf to use. We had a problem.



▲ Spreading the rootzone



▲ Laying the cores



▲ Rolling the surface



▲ The early stages of establishment in April

All the new developments have held consistency as the top priority. On the face of it, our options were to establish the greens from seed or from imported turf and both these methods would bring inconsistency and neither appeared particularly attractive. We were both left chewing on the problem of how to establish the new surfaces and retain consistency.

The initial suggestion to establish the greens from hollow tine cores was provided by Dr Ian McClements, Senior Agronomist for STRI covering Ireland. Henry asked his colleagues for input, via email, after explaining the problem. The suggestion to use cores was then backed up by Steve Gingell, STRI Agronomist, who had seen the results of using the technique while on an exchange visit to the New Zealand Sports Turf Institute.

Apparently, this technique is commonly used in both the USA and New Zealand to establish turf nurseries and, in special cases, playing surfaces. Henry got in email contact with Alex Glasgow, Agronomist from the NZSTI, who was extremely helpful and provided a detailed explanation of the procedure.

We discussed all the possible options for development between ourselves but in the end, the decision to proceed using cores was made by Tony. Throughout the decision making process Tony always received full support from the Chairman of Green, Dennis Armstrong, which was a great help.

It was always quite a risky decision, being a new technique, but Tony felt confident enough in the sense of the advice and the support provided by STRI to go ahead. Above all, we wanted to maintain consistency and so it was considered the best option. In any case, with two years to establish, it was felt that we had plenty of time to iron out any potential problems should they arise.

THE METHOD FOR ESTABLISHING A GOLF GREEN FROM HOLLOW TINE CORES

So, the construction of the first new green began in September 2003, which you'll remember as being ideally dry. Once again, the work was carried out using the USGA method, using suitably tested and approved materials. The surfacing work was carried out in March 2004. The procedure reads as follows:

CORING

Specific greens were cored at the end of March 2004, using 16mm tines set at 75mm spacings. We took the cores from the nine newer sand based greens to limit the level of organic matter and prevent the contamination of the upper profile with soil. These cores were a good mix of organic matter and sandy top dressing rather than being thick with thatch. The cores were stockpiled for a couple of days before use while the required quantity was gathered.

PLACEMENT OF CORES

The cores were barrowed onto the green and evenly sprinkled onto the surface with a shovel to a depth of 25 mm. Raking was not any help, as it tended to drag clumps of cores around. The cores were moist when laid and not easily moved around.

OVERSEEDING

Once the cores had been laid, the green was overseeded with pure bentgrass. Top quality cultivars were chosen based on their ratings in the Turfgrass Seed booklet. The seed was applied at a rather liberal rate of 35g/m².

ROLLING

The green was then rolled using a hand roller. This served to settle the surface down.