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Rachael Palmer from BIGGA's Membership Services Department would like to welcome 64 new members to the Association and invites you to take a look at BIGGA's range of merchandise.

END OF RANGE SALE

This month I have devoted the membership page to the fantastic range of BIGGA merchandise on offer. We are holding an END OF RANGE SALE which offers quality clothing at bargain prices. Perhaps the best value item we have for sale are ex Open Championship Waterproofs. These Sun and Rain suits were worn by the team at the Open and are consequently slightly soiled, for that reason, we have slashed the price to £30 for the jacket and £15 for the trousers or £40 if buying the whole suit. This compares favourably with new suits which retail at £59.95.

Other items available in the End of Range Sale are windproof tops at £14 and a variety of Slazenger and Arco Polo shirts retailing at £12.50 and £7.00 respectively. Please note that there are limited numbers of each item available. To order please call Rachael Foster on 01347 833800. Also featured is our normal merchandise range comprising of Cutter and Buck polo shirts and Peter Scott Lambswool jumpers in a variety of styles, perfect for Autumn and Winter use. To order either call Rachael Foster on 01347 833800 or use the form opposite.

To order either call Rachael Foster on 01347 833800.

To order please ring Rachael Foster on 01347 833800.

Please note there are only limited numbers available of each item.

WIN A DAY RALLY DRIVING!

How do you fancy a day behind the wheel of a race prepared rally car? To enter, just introduce one or more new greenkeeping members to BIGGA and your name will be placed into a draw to win a fantastic BIGGA Clock/calculator/calendar and alarm. Our congratulations go to September’s winner Peter Blacker, a retired member. Don’t forget until November not only will you be entered into the draw to win this clock you will also have the chance to win a day out rally driving!

WIN A DAY RALLY DRIVING!

To enter, just introduce one or more new greenkeeping members to BIGGA. Make sure you write your name on their application form as the person who referred them and we will enter you into the prize draw. Not only do you get the chance of winning the Rally Driving experience but the new member you refer is also in with a chance of winning a RED LETTER DAY VOUCHER to be used on an experience of their choice. 

Call either Rachael or Gemma in Membership Services today on 01347 833800 to request a new member application form and for further details.

SEPTMBER’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 fantastic BIGGA Clock/calculator/calendar and alarm. Our congratulations go to September’s winner Peter Blacker, a retired member. Don’t forget until November not only will you be entered into the draw to win this clock you will also have the chance to win a day out rally driving!

Scottish Region
- Kevin Bell, West
- Richard Evans, East
- Mark Knox, East
- John O’Connor, North
- Ross Prowse, East
- Michael Rae, North
- Daryl Robertson, West
- Darren Ross, North
- Neil Stevenson, Central
- Jamie Wilson, East
- Andrew Wilson, West

Midland Region
- Johnathan Allen, Midland
- William Bachelor, BBBO
- Lee Dance, BBBO
- Pat Drury, Mid Anglia
- Neil Faubel, Mid Anglia
- Simon Freshwater, Midland
- Hary Happs, BBBO
- George Hunt, Mid Anglia
- Gary Norcott, BBBO
- Neil Pickbury, Midland
- Robert Pignmore, Midland
- Martin Radstock, Midland
- Stuart Raybould, Midland
- Gary Rees, Midland
- Michael Scullion, Midland
- Lee Underhill, Midland
- Tim Watts, Midland
- Colin Wilson, BBBO

South East Region
- Alan Brown, E Anglia
- Terry Burgess, Kent
- Colin Chivers, Sussex
- George Hunt, Mid Anglia
- Gary Norcott, BBBO
- Stuart Pickbury, Midland
- Robert Pignmore, Midland
- Martin Radstock, Midland
- Stuart Raybould, Midland
- Gary Rees, Midland
- Michael Scullion, Midland
- Lee Underhill, Midland
- Tim Watts, Midland
- Colin Wilson, BBBO

Northern Ireland
- Martin Casement
- John Kennedy

International
- Brian Nokkol, USA

Associate Members
- Richard Althorpe, Sheffield
- Ed Carter, Northern
- Johnathan Rice, E Anglia
- Jonathan Ruse, E Anglia
- Richard Stillwell, Sussex

Corporate Members
- Roy George, Midland
- Chris Glover, Midland
- Campbell Young, Midland
- Martin Paton, Surrey

Golden/Silver Key Members
- Jonathan Rice, E Anglia
- Richard Stillwell, Sussex

5 West Wales Region
- Robert Culy, S Coast
- Dale Glead, S Coast
- Darren Hill, S Coast

Rachael Palmer from BIGGA's Membership Services Department would like to welcome 64 new members to the Association and invites you to take a look at BIGGA's range of merchandise.
**BIGGA MERCHANDISE**

<table>
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<tr>
<th>CODE</th>
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<tbody>
<tr>
<td>1.</td>
<td>A. Cutter and Buck BIGGA Logo Classic Polo Shirt</td>
<td>Available in Sunflower and Navy, Sizes M, L, XL or XXL</td>
<td>£29.95</td>
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<td></td>
<td>B. Peter Scott Lambswool Crew Neck Jumper</td>
<td>Available in Charcoal and Navy, Sizes 40, 42, 44, 46, 48</td>
<td>£34.95</td>
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<td></td>
<td>C. Peter Scott Lambswool V Neck Slipover</td>
<td>Available in Navy only, Sizes 40, 42, 44, 46</td>
<td>£29.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. Peter Scott Lambswool V Neck Jumper</td>
<td>Available in Navy only, Sizes 40, 42, 44, 46</td>
<td>£34.95</td>
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<tr>
<td></td>
<td>E. Sun and Rain Waterproof Suit</td>
<td>Available in Navy only, Sizes M, L, XL, XXL</td>
<td>£59.95</td>
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<td></td>
<td>F. Slazenger Baseball Cap</td>
<td>Available in Khaki with a Navy Peak only, One Size</td>
<td>£12.95</td>
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**ORDER FORM**

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<td></td>
<td>Peter Scott V Neck Slipover</td>
<td>40</td>
<td>1</td>
<td>Navy</td>
<td>£29.95</td>
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Please charge my Credit Card with £_______________

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VISA / Mastercard / Switch / Delta (please delete as appropriate)

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BIGGA membership isn't just for greenkeepers. We have four main categories to suit everybody. All membership categories are utilised by people seeking to create a greater understanding and awareness of greenkeeping, the skills, knowledge and training involved, and the rewards to be gained from this profession. All categories of membership benefit from a monthly copy of our award winning magazine Greenkeeper International and an annual copy of the BIGGA Golf Directory.

**Greenkeeper Membership**
(any person employed in the ‘keeping of the green at a golfing establishment’)
- Education opportunities for professional greenkeepers
- Exclusive discounts and benefits for Greenkeeper Members
- Exclusive access to our Greenkeeper Members Area
- Through Membership, BIGGA also aims to create a safer working environment for our members

**Associate Membership**
(any person who is not a working greenkeeper, but wishes to be part of a growing Association, i.e. Chairman of Green, Secretary, Company Sales Representative etc.)
- Networking with members, clients, suppliers and potential customers
- Exclusive discounts and benefits for Associate Members
- Online information & opportunities for Associate Members

**Corporate Membership**
(for those companies who wish to join up to 4 members of staff)
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BIGGA MEMBERSHIP IS ABOUT MAXIMISING RESOURCES FOR THE BENEFIT OF MEMBERS AND ENSURING THAT GOLF CLUBS RECOGNISE THE IMPORTANCE AND BENEFITS OF EDUCATION WITHIN THE PROFESSION

For full information on any of the four categories of membership, please ring Rachael Palmer in the BIGGA Membership Services Department on 01347 833800, email rachael_p@bigga.co.uk or find us on the web at www.bigga.org.uk or write to us at BIGGA HOUSE, Aldwark, Aine, York YO61 1UF
A GOLDEN Opportunity

Reigning Toro Student Greenkeeper of the Year, Andrew Pledger, gives the 2002 finalists an insight into what to expect if he or she were to win.

It wasn't until I had boarded the aeroplane to the US that it actually hit home that I had won the award of "TORO Student Greenkeeper of the Year", I had still been in shock up until then. The prize award was an all expenses paid trip to the US and an opportunity to study at Massachusetts University.

After an emotional farewell at Gatwick Airport I boarded the plane for the nine hour flight to Hartford, via Newark. On arrival, I was welcomed by over a foot of snow and hence a longer than usual taxi ride to the motel, where I would lodge for the next seven weeks. Adding to the drama my luggage was not to arrive with me and did not finally turn up until a few days later! But, I had no time to be worrying about this. I had time for just a few hours sleep and then it was up for an early start for registration and my first lesson at the University of Massachusetts.

For the next seven weeks I attended the 'Winter School for Turf Grass Managers', during which time I studied 11 subjects including Turf Grass Management, Soil Science, Diseases and Weed Management. All of the 11 subjects were taught to the highest standard by professors and scientists in their own field. It was truly a golden opportunity to be attending such a course.

The classes demanded a lot of studying both within and outside the classroom, but I found it stimulating and hence enjoyable. I often studied together with fellow students, who were also lodging at the same motel as myself, and this naturally gave opportunities to discuss openly what we had learnt in class.

In all, the course was attended by 53 students (Course Superintendents and Deputies), most of whom were from the US, and some from Canada.

Throughout the weeks we were assessed continually, and the marks from these assessments/tests helped form part of the final pass mark. For Turf Grass Management, Soil Science, Entomology, Turf Diseases and Weed Management we also had end of course exams/test papers.

It was seven weeks of hard studying and discussion, but as a way of relaxing I, together with a few of the other lads, took time out at weekends and evenings, to catch a few Basketball and Ice Hockey games. It was also the season for the SuperBowl so, as I am sure you can imagine this gave focus to some of our time-out! I also found time to enjoy a weekend visit to Boston.

Five weeks into my studies and I was catching a plane again. This time to Florida, to attend the GCSAA Trade Show, and the President's Dinner Show. At the dinner I met with Richard Barker, BIGGA Chairman, Clive Osgood, Past Chairman, Neil Thomas, BIGGA Executive Director, Huw Morgan, MG and winner of the Toro Excellence in Greenkeeping Award, and Andy Wight, my Tutor from Oaklands College. Before the dinner we witnessed Walter Woods receive the Old Tom Morris Award, given for
recognition of his services to the industry. I felt very privileged to have been invited to the dinner, after all I had only been part of this industry just three years, and what an opportunity! I, of course, had an enjoyable evening.

The following day I attended the Trade Show. It was enormous and extremely impressive, I only wish I had had more time to see more of it. I did, however, visit some of the major US grass seed companies, which I found particularly interesting because of the launch of a Round-up ready Bentgrass cultivar and, of course, I met with the TORO representatives, namely Andy Brown. By the end of the day I was back at the airport to catch the flight back to Hartford. It was unfortunate that the Trade Show and Dinner were scheduled during term time.

The course ended with a Graduation Dinner and Certificate Presentation. All my hard work had paid off and I graduated with high grades and a Certificate to prove it! I made a lot of friends and it was strange having to say goodbye, but I knew that I would keep in touch with them and who knows where we might meet again, in a professional way!

My next destination was Minneapolis and over the next three days my itinerary was to include a visit to the TORO Headquarters, the Shakopee Manufacturing Plant and the Tomah Production Plant.

The visit to the TORO Headquarters gave a useful and interesting insight into the research and equipment developing test work. It has certainly made me appreciate the ‘behind the scenes’ work conducted on each and every piece of equipment. Kris Lindstrom, from TORO, accompanied me on my visit to Shakopee. It is a manufacturing plant where they produce various parts for the TORO machines, but mainly cylinder blades and bottom blades for their cutting units. My final excursion was to the Tomah Production Plant in Wisconsin. Daniel Tinklenberg, from TORO accompanied me on this visit. Tomah is the place where most of TORO’s turfgrass machines are assembled and get their distinctive paintwork applied. The image that I take away from these visits wasn’t only one of machinery or a piece of equipment, but one of employee loyalty, where everyone seemed proud to work for TORO.

I also really appreciated that the lads from Toro, together with Jase Birch, Mike and Dan (also from Toro), took time out to show a good night in Minneapolis and we enjoyed some excellent food and a beer or two! An all-important bonding session is what some might call it!

My next port of call was to Riverside, California and it was a relief to finally be in warmer climates. The average temperature in Minneapolis was -6 degrees and never before had I attempted to wear so many layers of clothing.

On arrival at Riverside, and after checking in at The Marriot Courtyard Hotel, I was contacted by Kenne James, from Toro, who had arranged for me to visit Oak Valley Golf Course (just outside Palm Springs) and to play the course, which was in excellent condition.

The main purpose of my visit to Riverside, however, was to visit the TORO Irrigation Plant. Here all the irrigation systems and sprinklers are designed, produced and tested.

Now that I’ve been back for a few months, I can look back and reflect on just how much I have gained from winning this much-desired award. The trip exceeded all my expectations. Not only did I have access to first class tutoring, but also it was a fantastic opportunity to establish an invaluable network of contacts and friends.

My confidence has increased and my profile raised, both of which I am sure will stand me in good stead for my future career progression. I would like to take this opportunity to thank Ken Richardson, Education & Training Manager at BIGGA, and everyone else at BIGGA; TORO for their continuous sponsorship of the award and Lely UK, namely Pete Mansfield and Christine Wilson, Pete’s assistant, who helped organise the whole trip.

In addition, I would like to thank Richard Sheppard and Laurence Pithe, from American Golf UK Ltd, for allowing me the time away from my work at The Hertfordshire Golf Club, and lastly my friends and family who have supported me and backed my decision to change careers from Retail Management to Turf Management.
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A new type of water source for Southport and Ainsdale

Can a water supply be obtained that is both cost effective and does not cause environmental harm? Consultants Rick Brassington and Martin Preene describe a new water source at Southport and Ainsdale that is designed to do just that.

The Environment Agency recently granted Southport & Ainsdale Golf Club an increase to their water abstraction licence and allowed them to construct a new water source. The improved water supply is part of an overall irrigation improvement scheme based on a computer-managed system that allows a carefully controlled application of water on each part of the course. As well as watering the tees and greens, the irrigation system has been extended over the fairways to encourage grass growth in areas of high wear. The Course Manager can now apply water when, where and in the quantities that are needed, minimizing both the use of water and pumping costs. Avoiding over-irrigation forms an important part of S&A's strategy to have the minimum impact on the dune environment and goes hand-in-hand with their careful selection of grass species appropriate to a dune habitat.

S&A has a Countryside Stewardship agreement with DEFRA for the management of the dune heath habitat for a 10-year period that started in 1999.

The whole of the Sefton coastline from Formby Point to north of Southport, provides important habitats for plants, insects, migratory birds and animals whose conservation is important on both a national and European level. As a result, English Nature has given the area special status in terms of the EC Habitats Directive, ensuring that the natural features have the highest possible level of protection.

The S&A course lies on part of the sand dune system within this Habitats Directive conservation area and also an area of dune heath that English Nature has recently designated as a Site of Special Scientific Interest (SSSI). Dune heath is now one of the rarest habitats in Europe with about a quarter of this habitat in the UK is found along the Sefton coast. It is important for a very distinct group of animals and plants including scarce plants such as Common Bird's-Foot and Grey Hair Grass, birds such as linnets and reptiles such as sand lizards. It also provides a suitable habitat for natterjack toads that breed in adjacent wetlands.

Some of the valleys between the dune ridges contain marshy areas and pools during most winters, which are called wet slacks and are formed when the water table in the sands rises above ground level. These wetlands provide suitable breeding conditions for the natterjack toad and the common newt and are also home to several rare plant species. Although these wet slack areas lie on the western part of the dune system some distance away from the S&A course, the environmental regulators needed to be satisfied that the increased abstraction would not impact on these habitats.
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So give yourself a chance, enjoy the rewards and
give your soil a chance - the paybacks are great.

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S&A have taken a water supply from the dune sands aquifer (a water-bearing geological formation capable of yielding supplies to wells) that underlies the course for many years. The groundwater conditions in the aquifer around the golf course were investigated as part of S&A's application to increase their abstraction licence. A network of specially constructed shallow, small diameter tubes was used to monitor groundwater levels at the locations shown on the map. Several measurement tubes were also located in club members' gardens and one on the neighbouring Hillside course, to provide information over a greater area.

Groundwater in the dune sands is fed by rainfall percolating into the ground until it reaches the water table. The water level readings show that there is a low recharge mound running parallel to the coast about 1.5 km inland with a peak some 11.5 m above Ordnance Datum, or about 7 m above the average sea level. Measurements taken for more than a year show seasonal fluctuations of 50 - 75 cm with the water table mound remaining in much the same place. Groundwater flows through an aquifer in the direction of the slope on the water table. Consequently, in the western part of the aquifer groundwater flow is towards the sea with it seeping unseen through the beach sand. The eastern part of the aquifer including the S&A course drains to local streams on the east side of the sand deposit and as a result, the new abstraction poses little risk to the wet slacks that lie more than 500 m to the west.

S&A's existing lagoon was not capable of being pumped at the increased rate. It was decided to construct a new source located near the Greenkeepers' maintenance facility where the irrigation control system had been installed, with the advantage of being further away from the wet slacks. Nevertheless the Environment Agency still required a detailed investigation to show the potential impact of the increased abstraction. All the water level records were fed into a standard groundwater computer model which showed that even with three years without any recharge to the water table, the S&A abstraction would not reduce water levels in the wet slack areas.

Options for the new source were limited to a borehole or a well-point system. A deep borehole was ruled out because of the relatively shallow depth of the dune sands. A well-point system typically consists of a large number of small diameter (50 mm) tubes sunk to a depth of 4 – 6 m and connected to a pump via a pipe laid on the ground surface. They are mainly used in construction to lower groundwater levels and sometimes as a water source in aquifers with shallow water tables.

The type of construction ultimately chosen was a horizontal well-point (HWP), a relatively little used variant on the well-point system with significant advantages over the conventional design in a well-sorted, fine-grained sand. HWPs consist of a horizontal filter pipe similar to those used in land drainage schemes, which is installed below the water table and connected to a suction pump at one end. The overall surface area in contact with the aquifer is much greater in a HWP compared to more conventional well-points and allows water to flow in easily with negligible lowering in water levels. Hence the environmental impact to groundwater dependent habitats is minimal. In addition, groundwater flow velocities are kept low thereby reducing silt build-up on the pipe surface and significantly extending its useful life, probably by several decades.

The HWP was made from 160 mm diameter, corrugated plastic land drainage pipe slotted with 2 mm perforations and wrapped in a geotextile fabric as seen in the photograph. It was installed using a specialized deep trenching machine normally used for land drainage works. First of all, a hole was dug to the water table at about two metres depth using a JCB-type excavator. The trenching machine boom was lowered into this hole and then cut down until the boom was vertical and the pipe set at 6.5 m depth. The HWP pipe runs along the edge of the course from the Greenkeeper's shed for some 150 m to the southeast where it turns to the northeast for a further 130 m. The depth of burial gradually decreases and is about 4.5 m at the change point and 4 m at the furthest end. The location of the HWP is shown on the map.

The filter pipe was surrounded by a coarse silica sand with a grain-size selected to match the aquifer to prevent silt entering the pipe. The sand was fed into a hopper on top of the trenching machine's digging boom and fed directly onto the pipe. All the water pumped from the HWP has been sediment-free showing that this aspect of the construction has been successful.