Open winner’s praise for Royal Troon

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**SERIALS**

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**MICHIGAN STATE UNIVERSITY**

**AUGUST 1997**

**Contents**

Open triumph for everyone

The Open Championship was another glittering golfing highlight - and yet again BIGGA was in the thick of it, with our Support Team privy to the inside stories. Scott MacCallum compiles the snippets and we have three pages of pictures.

Sheds heaven at St Andrews

It was a day of celebration when the greenkeeping staff at St Andrews moved from their 40-year-old sheds into their new greenkeeping centre. And what a difference!

The bunker rakes' progress

The upkeep of bunkers can be a real chore for many greenkeepers. Hugh Tilley reports on the machines designed to make the task more bearable.

This course is just too difficult

Dutch golf course architect and R&A member Joan Dudok van Heel describes the best way to make a course more challenging and reveals some pet hates in course design.

Regular features

News

The Jack Nicklaus connection in East Sussex, relocation of an international site for Toro, success in Scottish Championships, the European dimension for students, college principal retires... all the industry news is here.

Letters

The despair of a greenkeeper being ground down by the battle to appeal for a '30s tractor - and tee marker rules - are questioned.

Cover

Royal Troon, plus the BIGGA support team, in the midst of Open excitement.

Roland Beaver Ltd.  568 - Peter Mainsfield, Golf Greenkeeping International

The next edition of Greenkeeper International should be with you by August 30.
Presenting a definitive A-Z of our industry...

I don't get much free time but occasionally, when I do, I doodle and compile lists and play with words. What am I doing... I'm revealing to all you readers what a sad anorak I am! Let's start again.

I don't get much free time in my hectic devil may care lifestyle but occasionally, between rock climbing, hitting the clubs and mixing with celebrities, I unwind by compiling the odd list. The latest is an A-Z of greenkeeping. See what you think and if you can do better, and I'm sure you can, I'd be delighted to publish it.

At Armchair. From where most members pick up their appreciation of US golf courses and demand that all British courses should look the same.

Bar. The informal information exchange which works best for many greenkeepers.

Committees. The guiding light for so many greenkeepers.

Divots. Always there, or soon to be there, to scar the green particularly into the green particularly after a particularly late night – see “Bar”.

Highlight of the year for many.

Open Championship. Highlight of the year for many.

Poa Annua. A regular and unwelcome visitor.

Queue. Often seen at the bar at BTME.

Richard Barker. He would be upset if he didn't get a mention.

Sections. 26 of them, in five regions, make up BIGGA.

Turfgrass. For good foundations.

Uranium. Makes you light up at night.

Valderrama. The stunning venue for next month’s Ryder Cup.

Wettest June on record but still not enough of the stuff.

Xylophone. A musical instrument and one of only six words in the Pocket Oxford Dictionary beginning with “X”.

Yard. Imperial measure measured in until the EC get hold of the subject.

Zigzag. The intricate pattern which can be woven into the green particularly after a particularly late night – see “Bar”.

Moving into July my schedule was as hectic, but no less enjoyable, as ever. In fact, some of my experiences this month I'll treasure for the rest of my life.

After a productive board meeting at Aldwark Manor I headed to The Belfry as a guest of RiteFeed, one of the Association's Golden Key sponsors. It gave me the opportunity of seeing the excellent new PGA National course and meet up with Derek Ganning and his team. The greens on the new course were absolutely brilliant.

I'd like to thank John Walker and Richard Lawrence for their hospitality, part of which I was able to repay by acting as a courier and taking soil samples from The Belfry back to the STRI on my way home.

The final Hayter Regional Final at Matten Hall ended the jinx Kim Macfie and I had endured at the two previous finals which had to be restricted to nine holes because of the rain. I played another 10 holes and can say that my golf is improving and will continue to do so long as Kim keeps providing the golf balls.

I travelled to The Open on the Tuesday and was privileged, along with Kim Macfie, to be a guest of the Editor at the Golf Writers' Dinner. It was a superb occasion attended by, among others, Ernie Els, Tom Lehman and Tom Kite, with speeches by five times Open Champion Peter Thomson and Colin Montgomerie. I was honoured to meet Colin and his wife before the dinner as they are friends of Kim's, while I also bumped into Jaime Ortiz-Patino, owner of Valderrama whom I'd met at the GCSAA Show in February.

It was a superb week. The highlights were meeting Viscount Whitelaw and his wife in the BIGGA marquee where Bob Lupton, Gordon Child and Elliott Small were presented with watches to mark their retireals from the role of Regional Administrator. I also met members and non-members from as far afield as Sweden, America and Australia, while I certainly impressed Scottish Chairman, Sam Morrison, with the news that I'd given up smoking.

My big moment came, however, when I had a picture taken, with the Support team, crouching next to Justin Leonard, the new Open Champion. I congratulated him on his victory and he held up the famous claret jug and said to me, “Get your hands on that.”

I'd like to thank all the staff and members of the Association who made The Open the success that it was.

I got back to the work on the Monday afternoon and had all Tuesday at the club before travelling to Cornwall for a meeting. It involved getting up at 4.30am to catch a train in Leeds and not getting home before 10.35pm.

All in a month's work.
Famous connections bring benefit to club

Tim Lower from Eastbourne was glued to the television during the Open Championship at Royal Troon. The 29 year-old Head Greenkeeper at Battle Golf Club in East Sussex had a special interest in three times Open Champion Jack Nicklaus.

Tim’s family connections led to Battle Golf Club receiving a signed photograph of one of the greatest golfers of all time when the new nine-hole golf course opened for play at Netherfield Hill, just two miles from the historic town of Battle.

“I was so chuffed when she heard the news,” says Tim. “It was so exciting. My father has been an Arnold Palmer fan since his golfing days.”

His father’s first husband was Ken Bowden who lives in America and has a long association with Jack Nicklaus having worked with him for more than 30 years writing teaching books with the golf legend.

His mother’s idea, she was so chuffed when she heard that I had been appointed the Greenkeeper at Battle that she organised the picture with a personal message from Jack Nicklaus through my step-father,” says Tim proudly about his mother Marjorie.

His mother’s first husband was Ken Bowden who lives in America and has a long association with Jack Nicklaus having worked with him for more than 30 years writing teaching books with the golf legend.

Barking up the right tree

Eamonn Wall & Co is co-promoting a one-day seminar on “Trees in a Golfing Landscape” with the Mersey and Red Rose Community Forests.

The seminar will take place on September 10 at Blundells Hill GC, St Helens. Topics covered will include constraints on planting on a golf course, golf strategy and the roles trees can play, principles of golf course design and the benefits of trees, successful tree establishment, the need to manage woodlands and the grants available for new planting.

For further details contact Paul Nolan, The Mersey Forest, Tel: 01925 816217.

A similar event is being held at Addington Palace GC on September 29. Further information on this seminar can be obtained from Lawrence Dennis-Smith: Tel: 0181 654 3061.

Toro relocates an international site to Bournemouth

The Toro Company has relocated its international commercial department – previously based in OeveI, Belgium – to its UK office in Bournemouth, in a move which sees the UK become Toro’s European headquarters for sales and marketing of professional turf maintenance equipment and irrigation systems, as well as consumer division products sold under the Wheel Horse banner.

Toro’s European Sales Manager Bob Buckingham, with colleagues Christian Grissard Van Roey and Charles Gregory, have transferred to the UK office.

Bob Buckingham said: “Toro has relocated its European Sales HQ to the UK office in recognition of the demand here for our products in both the golf and non-golf industries. This office is now the centre of our sales operations in Europe for all three aspects of our business – turf equipment, irrigation systems and Toro, Wheel Horse and Lawn-Boy consumer-products.

“We strongly believe in having our own personnel based locally in the markets we serve.”

Details of the office are The Toro Company, Homelife House, 26-32 Oxford Road, Bournemouth BH8 8EZ. Tel: 01202 209281, Fax: 01202 291198.

Appointments for Martin Brothers

Martin Brothers (UK) has appointed Tim Edwards, formerly of Tarmac Top Sport, as Regional Sales Manager for South Wales and the Midlands.

FLYING DIVOTS

Douglas Bell joins BIGGA next month as the part time Regional Administrator for the Northern Region.

A face known to a number of members as Douglas joins the Association direct from his post as Secretary/Manager at West Lancashire Golf Club which hosted the final of the Hayter Challenge in ’95 and the inaugural Hayter International Cup between the Rest of the World and the Americas last year.

Douglas has been at West Lancs for 13 years having previously spent six years at Secretary/Manager at Woolton GC in south Liverpool.

Prior to that he worked in the finance department of Runcorn Development Corporation and the City Treasury in Liverpool.

A Liverpool man, and fan, he was born in West Derby and among his interests is football. As well as formerly being a referee at local level he has been the Honorary Financial Secretary to the Liverpool County Football Association for the last 24 years.

“I have a great many friends in golf and in my new role I am looking forward to meeting up with them and making new friends through BIGGA,” said Douglas.

He takes over the reigns in the Northern Region from Bob Lupton.

Amenity Land Services Ltd, is hosting two open days this month. Tuesday 12 and Wednesday 13 of August will be Open House for the Telford based company. All aspects of turf production and maintenance will be on display including ALS’ own Contracts Division which will be demonstrating spraying, vertidraining and overseeding on the turf fields. Also in attendance will be Rhone Poulenc, Sharpes International, Chemlock Environmental, Scots UK Ltd, Vitax, Bathgate Sand and Top Dressing, Hall Market Harvesters and Amenity Technology. To book your place contact Duncan Burton Tel: 01952 641949.
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Students sample the European dimension

The demand for a greater knowledge of the European dimension, as part of the national diploma course, was met recently when students from Reaseheath College visited Holland, courtesy of Mommersteeg International.

The five-day study tour was led by Phil Davies, Mommersteeg's Amenity Product Manager. The visit provided students with a comprehensive insight into the demands on Dutch grass breeders, turf producers, local authority and parks groundsmen, football stadium groundsmen and golf greenkeepers.

The first stop on the tour was a visit to Mommersteeg International's headquarters at Vlijmen, from John Verhoeven, Product Manager and Jos Deckers, Area Manager for Europe and South America, about the breeding, trialling and testing of grasses and seed production for the European market. Students had the opportunity to take a close look at a specially-con-structed par three golf hole, which has been sown with a variety of Mommersteeg mixtures as part of its comprehensive trials work.

For Jos Deckers the students were an impressive group. "The professionalism shown by the students from Reaseheath is very encouraging for the future of greenkeeping."

Go-ahead for centre

A new training centre and extra office accommodation is to be built for John Deere Limited's UK headquarters in Langar, near Nottingham, at a total cost of £2.5 million.

The training centre will replace the company's existing facilities at nearby Bingham, which were established 16 years ago. John Deere Limited is the UK and Irish arm of the world's largest manufacturer of agricultural and groundscare machinery, and commenced trading at Langar in 1966.

The first sod at the new site was turned, and a commemorative tree planted, by Doug Walker at a special ceremony held at Langar in June.

Doug was closely involved with the establishment of John Deere Limited in the UK in the mid-1960s, becoming Managing Director in 1968. He was succeeded on his retirement by the current managing director, Alec McKee, in February 1993.

Success in Scottish Championships

Over 70 players took part in this year's Scottish Championships on another beautiful day at Craigmillar Park in Edinburgh.

We had an excellent day, the course was in excellent condition after the inner man and the merry men, the catering and bar staff were most solicitous in looking after the inner man and the club were most welcoming. What more could we ask for? Well, the Vice Captain, Ronnie Galbraith, kindly presented the prizes and Tom Lawson, the Secretary, could not have been more helpful and even found time to play as one of our guests. So all we needed was some good golf and we certainly got that. I think the prize list speaks for itself, suffice to say the handicap secretaries need to have their pencils sharpened after this lot.


I must finish with a word of thanks once again to the patrons of the Scottish Region for all their marvellous support both for this tournament and all the other events held each year in the Region and Sections. Elliott Small

Heathland plants and wildlife on forum's agenda

Heathland conservation on golf courses is one of the topics to be examined in the Annual Heathland Forum this year, organised by the Staffordshire and West Midlands Heathland Partnership.

A number of courses in this area either have, or have the potential to support, a variety of heathland plants and associated wildlife. Modern course management recognises the value in incorporating the needs of wildlife into the maintenance programme for golf.

The Annual Heathland Forum will be held on Wednesday 13 August, 1997 at Beau Desert Cannock, Staffordshire, starting at 9.30am. Numbers are restricted, so interested parties should contact Sue Sheppard on (01785) 27256 at the earliest opportunity.

Promotion

Robert Brewer, Course Manager at St Mellion since September 1995, has been promoted to Course Manager/Director of Golf. Robert, who previously worked at Sunningdale under Jack McMillan and spent five years at Dukes Dene, will be in charge of a pro shop, four professionals and shop assistants. He will continue to look after 18 greenstaff, two courses, four tennis courts and a bowling green.
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John Davidson, Gaton Manor Golf Club
James Shelliker, Ingol Golf Club
Mike Symons, Manor House Hotel Golf Course
Martin Roberts, Camberley Heath Golf Club

Look out for the next C.M.W. competition

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Swansea-based golf club, Pen-nard, was the 1996 prize winner in the annual Golf Foundation/ Kubota Prize Draw which took place at Wentworth earlier this year. The prize, an 18hp Kubota front mounted ride-on mower worth over £8000, was presented to the Club's Captain and Vice-Captain on Wednesday 22 April at Kubota's dealership Celtic Mowers. Pennard was one of 129 golf clubs which qualified for the Kubota prize draw by donating £250 or more to the Golf Foundation's annual fund raising appeal.

Pledging support again for the 1997 draw which will take place in early 1998, Kubota's Marketing Manager, Stuart Ellis said: "Kubota has been supporting the valuable work of the Golf Foundation now for many years and is delighted sponsorship of the event continues to help raise funds for the charity."

On track to raise cash for charity

British Seed Houses Sales Manager, Simon Taylor is set to go 'state side' running this year's New York Marathon in a bid to raise £2,000 for Help the Aged.

Simon, 34, who is based at British Seed Houses amenity division in Warrington, has just started a six month training programme for the 26 mile race, which will take place on November 2 with a field of more than 35,000 competitors. He hopes to finish in around three hours.

No stranger to gruelling events, Simon last year took part in the London marathon, raising over £1,600 for a local hospice. "Running in New York will be a great experience, even though in November it can get very cold!" said Simon. "I'm working hard to get as many sponsors as I can before I go, but of course I could always do with more. I'm hoping companies within the amenity grass industry will be kind enough to support me."

Anyone wishing to sponsor Simon should contact him at British Seed Houses: telephone 01925 654411.

Impressive line-up for seminar

This year's Midland Region seminar will be held at Northampton Rugby Club on Wednesday November 19. Speakers are Jack McMillan - Golf Course Management Consultant; "Progressive Greenkeeping"; George Brown - Golf Course & Estate Manager Turnberry Hotel; Andrew Laurence - BIGGA Insurance Broker; "Members Insurance Cover Explained"; Peter Jones - Golf Course Consultant; "Budgeting for Greenkeeping"; Noel Green - Runner-up Toro Student of Year 1996; "My Last Year's Experiences"; Mike Wadley - Sec. Northamptonshire County Golf Club: "Communication - Between Committee and Green Staff"; Danny Godfrey - Boughton Loam Ltd: "Breeding, Production and Selection of Grass Seed"; David Powell - Head Groundsman Northampton RFC: "Development Of The Saints Rugby Ground"; Roland Taylor - Grassblades Marketing: "The Merits of a Mechanic on the Greenkeeping Staff".

Application forms will be sent out to Midland Region Members this month. If you don't receive an application form contact Peter Larter Tel No/Fax: 01480 437507.

Principal thanks great teamwork

Anthony Fox OBE, Myerscough College's Principal, retires at the end of August.

His time at the College has included periods as a student, lecturer, Farms Director and Vice Principal, until the appointment as Principal in 1985. Under his leadership the College has grown to become one of the nation's leading centres of excellence in agricultural and horticultural education.

One of Mr Fox's major successes has been in co-ordinating the planned development of the College onto a single site at Bilsborrow. This will be fulfilled during 1998, giving students access to a comprehensive range of educational resources covering 14 subject areas. He states: "I am proud of my achievements and I am proud of the staff that have helped make this happen. It has been great teamwork."

Although retiring, Mr Fox is not leaving the area. He will continue to be involved in the local community and the wider sphere of land-based education.

Myerscough College's new Principal is Professor John Moverley, Head of the School of Agriculture and Horticulture at De Montfort University since 1988.

Professor Moverley, like Mr Fox, is a well respected figure in the land-based industries. He commented, "I see terrific potential here at Myerscough. The College has an excellent reputation already and I am looking forward to getting myself established in the county."
Finalists prepare for the big finish

With the completion of the three remaining Regional Finals the final field for the 1997 Hayter Challenge has been assembled.

The Midland Regional Final of the 1997 Hayter Challenge Competition was held at the Warwickshire Golf Club in atrocious weather on June 26. The staff at the Warwickshire did a tremendous job in keeping the course open, and the Region is grateful for all their efforts the weather did intervene and the round had to be reduced to nine holes. The conditions didn't stop many good scores being posted, and a number of close countbacks resulted.

The winning section prize was taken by the Midland Section with an aggregate score of 382, with the Mid Anglia Section being close runners-up on 386. The individual winners and qualifiers for the National Final at Ganton Golf Club on September 17 and 18 were:

Cat. 1. 1. Mike Hughes, Edgbaston - net 35.5. 2. Tony Cheese, Dartmouth - net 36. 3. Andrew Duncan, Kettering - net 36.
Cat. 2. 1. Julian Chessor, Three Hammers - net 36.5. 2. Antony Bindley, Kirby Muxloe - net 37.5. 3rd Ian Needham, Beedles Lake - net 38. (Unfortunately Ian Needham is unable to play in the Final so Dean Jones of Gerrards Cross, who was 4th with a net 38, will take his place). Cat 3. 1. Jason Hatton, Brocket Hall - net 31. 2. Mark Bindley, Kirby Muxloe - net 35.5. 3. Martin Jones, Bridgnorth - net 36.5.

Peter Larter

South East Regional Final

The weather certainly gave the region fair warning, on the evening before the Finals, the magnificent clubhouse was going to be wasted. The efforts of the Region it must have been a relief for those finalists who had been an award for “Gentleman of the Day” it would have done to barry Speller, Adebide. He and I know why.

Derek Farrington

Northern Regional Final

Hatled at Matten Hall GC in the North East it was a long way to travel for many of the Northern Region members, particularly those from North Wales, but was well worth the effort for all who had qualified.

Thanks to Jimmy Richardson and his staff for presenting the course so well and also the staff for making us so welcome. Thanks also to Hayter for generously sponsoring this event.

The following qualified for the final at Ganton in September where they will defend the trophy won last year at Formby:


Well done – see you at Ganton! Sara Lupton

The teams already confirmed were Scotland and the South West and South Wales:

Scotland Cat 1. 1. D. Leith, St Andrews, 73-1=72; 2. S. Taylor; Kirkermont, 74-1=73; 3. D. Wilson, Irvine Bogsaid, 81-8=73; 4. C. McKay; Elmwood, 79-6=73.

South West and South Wales Cat 1. 1. R. Daly (D & C) 65; 2. L. Millar (S. Coast) 69; 3. D. Bray (D & C) 74. Cat 2. 1. A. Knight (S. West) 71; 2. P. Wentworth (S. Coast) 73; 3. M. Porish (D & C) 73; Res. A. Cosh (S. Wales) 73.
Cat 3. 1 - A. James (D & C) 68; 2. J. Cooper (S. West) 76; 3. A. Rideout (S. Coast) 77; Res. J. Braithwaite (S. West) 77.

Hayter's Kim Macfie, left, congratulates Mike Hughes on his performance with Regional Chairman Antony Bindly looking on
The Jubilee Greenkeeping Centre under construction last year: Staff facilities and administration wing are laid out on two floors at the southern end of the building.

It was a day for celebration when the greenkeeping staff looking after St Andrews' Old, New and Jubilee Courses moved from their 40-year old sheds into the new Jubilee greenkeeping centre during the first week of April 1997.

Fourteen months earlier, the staff responsible for the Eden, Strathclyde and Balgove Courses at St Andrews had said goodbye to their colleagues prior to moving across the links to the new £525,000 Eden greenkeeping centre, described then as the best facility in Europe.

While it continues to set a very high standard, the Eden has been joined on St Andrews Links by a greenkeeping centre which can claim to be the equal of any in the world providing combined greenkeeper accommodation, equipment storage and workshop maintenance facilities.

Costing almost £885,000 for its site works and construction, the Jubilee sheds and associated parking area and roadways, soil, fuel and chemical stores and wash bays cover almost 1.5 acres (0.65 ha).

The main building comprises a long span portal frame structure measuring 220ft by 84ft (67m by 25.5m) and topped by a shallow curved roof clad in double skin insulated aluminium sheeting. By combining a low eaves height, a soft roofline and a light green colour for the exterior of the building, architect Fraser Smart has minimised the sheer mass of the construction which covers an area of 21,268 sq ft (2,014 sq metres).

Surrounded by high soil embankments which have now been seeded, the complex is barely visible from the town and the three courses it serves, minimising the effect on the natural landscape and fulfilling the initial requirements of the St Andrews Links Trust.

Contained within the building is 11,774 sq ft (1,115 sq m) of storage for greenkeeping equipment and buggies, a 6,463 sq ft (612 sq m) staff, administration and storage wing and a 3,031 sq ft (287 sq m) workshop and store.

Although work benches are provided within the main part of the building for use by greenkeepers for the setting up of cutting units and other daily maintenance, the workshop within the Jubilee building is equipped to carry out all of the major service and repair work on the tractors, mowers and other course machinery used across the whole of St Andrews Links.

Managed by George McLaren with a team of three engineers, the workshop is responsible also for the irrigation equipment installed on the single nine hole and five 18 hole courses administered by St Andrews Links Trust.

With 28 years experience behind him, George knew exactly what he needed in his new workshop and worked closely with the architect on its internal design. "Health and safety considerations were a primary factor behind the layout of the workshop," he explained. "The area is sufficient to allow each engineer to have his own portable hydraulic bench for working on engines and smaller items of equipment. Although there is no wasted space, there is no clutter either. If a machine is waiting for a part then we have the room to work around it or park it in another part of the building."

Originally, the workshop was planned around two hydraulic lifts - a four poster for four-wheeled vehicles and a Hefte unit for the three-wheeled mowers and Cushman turf maintenance vehicles. Space considerations and the discovery of a 4 tonne scissor jack unit capable of lifting all wheeled machines apart from the digger provided a valuable cost-saving investment.

"In the past, we had to use axle stands if we needed to get beneath a tractor or mower," commented George. "The scissor lift is proving a great piece of kit, lifting to full standing height and folding flush with the floor when not in use."

Apart from the main workshop, ...
The aim was to create a modern workshop incorporating a level of skills and facilities capable of maintaining to a high standard all of the machines used on St Andrews' five and a half golf courses.

George and his team have separate areas for machine cleaning, cylinder grinding, welding and parts storage. They also have their own lockable store for hydraulic fluids and special oils. “If someone other than the workshop needs hydraulic fluid then it means that the machine has a leak and we need to know about it,” pointed out George.

Two external covered washbays are located adjacent to the rear door of the workshop. One is connected to a grass interceptor, the other to an oil and diesel interceptor, providing totally separate cleaning facilities to suit the machine and its condition. There is also an internal wash area linked to the oil and diesel interceptor for cleaning engines and related components.

The grinding room is located behind a lockable internal door and contains two machines—a combination cylinder and bottom blade grinder and a sole-purpose bottom blade grinder. Although quiet during the summer, this area will be in constant use during the winter months restoring a keen edge to the many greens, tees and fairway mowers responsible for maintaining the 99 holes of golf and golf practice centre laid out on the links at St Andrews.

Gas, MIG and electric arc welding equipment are housed in a separate bay adjacent to the main workshop, together with an electric saw, pillar drill and hand and pillar grinders.

Having been able to design the workshop literally from the ground up, George was keen to include a number of important elements within the finished workshop. These include ample electrical sockets (10 double sockets at 3m spacings) and compressed air outlets (nine), good lighting (a combination of sodium and tungsten elements), efficient ventilation (four piped exhaust extractors plus three wall fans) and a floor-standing mobile hydraulic crane.

The parts store is divided into two sections—one for course maintenance machinery, the other for the irrigation equipment looked after by George McLaren’s assistant, irrigation engineer, William Redpath. Within the two stores are held sufficient parts for all scheduled service requirements as well as emergency replacement items to cope with breakage or wear. The workshop can also make up its own hydraulic pipes and has pressure test equipment for diesel fuel injectors, radiators and hydraulic circuits.

“The aim was to create a modern workshop incorporating a level of skills and facilities capable of maintaining to a high standard all of the machines used on St Andrews’ five and a half golf courses,” pointed out George McLaren. “We will call on the dealer or manufacturer for specific training, advice or help but the principal contact comes when ordering parts for routine servicing or repairs.”

The day to day operation of the workshop and the machinery passing through it relies on close liaison between George and the greenkeeping staff, with priority being given to breakdowns or urgent repairs. When a regular service has been completed, a sticker is placed on the machine stating when the next service is due. It is then the greenkeepers’ responsibility to let the workshop know when the item is approaching the designated service time.

Because each of the courses at St Andrews has its own fleet of machines, it is a relatively simple matter to apportion the workshop labour and parts costs for every machine to its specific course. In addition to enabling a close eye to be kept on overall machinery costs on each course, the completion of a log book for every major piece of equipment ensures that recurring problems or high running costs (and vice versa) are noted and acted upon.

The improvement provided by the new workshop over the previous facility is, says George, like comparing day with night. He particularly appreciates the high level of security and the fact that the two roller shutter doors can be opened only from the inside of the building. Initial entry to the workshop is gained through a personnel door leading from his office window from where George can keep a close eye on the daily comings and goings of people and machines.

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Separate wash bays are provided for cleaning course maintenance machinery
The famous claret jug and a nice big cheque may have gone to new Open Champion, Justin Leonard, but the greenkeepers who attended the Championship, both from Royal Troon's own team and the BIGGA Greenkeeping Support Team were also basking in glory at the end of the week.

Billy McLachlan and his team fully deserved the fulsome praise which was heaped on the course and its condition by everyone – including the players who usually are notoriously slow at giving greenkeepers plaudits.

None more so than the new Champion himself who spend a sizable chunk of his Champion's speech praising the work of the Royal Troon greenkeepers and that of the Support Team.

The team itself was drawn from 52 greenkeepers all over Britain – from as far north as Royal Dornoch and as far south as St Enodoc on Cornwall – with three from Sweden and two from Augusta National.

The team assisted by Billy, Jim Devlin and the Royal Troon team with post round divotting and pre-round bunker raking while each match was accompanied by a member of the team to rake any bunkers which were found during the course of the round.

For the third consecutive year the team produced the statistics for the Great BIGGA Bunker Competition run for the Media during the week. Each day every bunker which was found was marked producing a daily total of bunkers hit as well as a cumulative figure. This provided some excellent statistics for the press, television and radio as well as the race for the final prize. Each daily winner received a bottle of whisky while the overall winner receives a Hayter Harrier 48 lawn mower, worth over £600, kindly donated by Kim Mcfie, Sales and Marketing Director of Hayters.

The total of bunkers found over the week was 859 and the person who won the top prize was Sally Abell, of the Coventry Evening Telegraph, who estimated 857. She will be presented with the mower at a later date. Sally collected the first of the daily prizes and was joined for the other three days by representatives of the three biggest golf magazines, Colin Callander, Editor of Golf Monthly, Neil Pope, Editor of Today's Golfer and Peter Masters, Features Editor of Golf World.

The in-house competition, run for members of the Team, was won by David Cuthbertson with the daily prizes going to Jimmy Neilson, Steve Mitchell, Billy Merritt and Steve Wenlock.

The members of the Support Team were at their smartest during the week as a result of wearing shirts supplied by Lyle and Scott, shoes supplied by Spaldings (Etonic) and waterproofs supplied by Walrus. BIGGA would like to thank those companies for their support.
The Paul Broadhurst, Justin Leonard, Wayne Riley match interrupted a family on the 12th hole. As the players stood on the tee they could see the family sitting in the middle of the fairway about 30 yards in front of the tee tucking into their lunch. Riley called out: "Are we disturbing you?" and apologised for having to move them when the three had played off. Information supplied by Steve Johnstone of the BIGGA Greenkeeping Support Team.

Darren Clarke was interrupted by Mark James' ball running on to the 9th green before he had holed out. Darren wrote a note and pinned it with a tee beside Mark's ball. Content of the note is not known but everyone concerned had a laugh. Information supplied by lain MacLeod of the BIGGA Greenkeeping Support Team.

Ian Woosnam holed his bunker shot at the 18th on day one and promptly presented the ball to the man who raked his bunkers - Sam Morrison, Head Greenkeeping at Royal Aberdeen Golf Club and Chairman of the Scottish Region of BIGGA.

Wayne Riley hit a spectator on the head on the 5th hole on the second day and saw the ball bounce into a bunker. Wayne made par and a message was sent to him at the 7th to say that the spectator was OK. Information supplied by Stig Persson of the BIGGA Greenkeeping Support Team.

Mark Roe and his caddie couldn't wait to finish their second round and ended up eating fish and chips walking down the 13th fairway. Information supplied by Billy Merritt of the BIGGA Greenkeeping Support Team.

The cut mark could have been affected by the very last match. American qualifier John Kernohan, standing at three over par on the 11th tee, saw his drive heading out of bounds. He hit a provisional but Gavin Kyle of the BIGGA Greenkeeping Support Team had seen the original bounce off the top of the wall and remain in bounds and got a message back to Kernohan. He ended up dropping only one shot and qualify on 4 over par and those on six over missed out. Information supplied by Gavin Kyle of the BIGGA Greenkeeping Support Team.

Ronan McKeown was presented with the ball which won the Championship by the new Champion Justin Leonard as he left the final green.

Top: Tiger Woods found more than his fair share of sand on the final day, losing his chance to win but kept our man Andy Sheehan busy
Above: Pat Murphy with Gordon Child, Bob Lupton and Elliott Small who were presented with watches by BIGGA President Viscount Whitelaw on their retirements from the roles of Regional Administrators in the South West and South Wales, Northern and Scottish Regions.

Scottish Chairman Sam Morrison with Billy McLachan Head Greenkeeper at Royal Troon.
Top right: John Berry was the man who got the show on the road in the first match of the first day
Left: Saturday night football. At least that’s what they called it
Below: Early morning or late night? You decide

Tiger Woods hit a young child with his tee shot from the 7th. Tom Lehman, playing in the match in front went into the crowd to find out if the child was OK.
Information supplied by David Spurden of BIGGA's Greenkeeping Support Team.

The Duke of York walked a few holes with Colin Montgomerie and Mark McNulty's pairing as well as that of Fred Couples and Jesper Parnevik during the third round.
Information supplied by Chris Sheehan of BIGGA's Greenkeeping Support Team.

Peter Leonard struck a scorer on the hand at the 15th hole and the ball, which was heading towards the rough, bounced onto the approach. He then birdied the hole, apologised and handed the scorer £5.
Information supplied by Kneale Diamond of BIGGA's Greenkeeping Support Team.

Vijay Singh and his caddie thought they had one of the Championship heroes walking with their match on the last day. The caddie took one look at Steve Johnstone, of the Support team and yelled to his boss, "Look at that, we've got Darren Clarke with us today!" Vijay turned round and said "Gee yes, So it is!"
Information supplied by Darren Clarke lookalike, Steve Johnstone, of BIGGA's Greenkeeping Support Team.

Kim Macfie was able to catch up with a couple of old friends during the Association of Golf Writers' Dinner on the Tuesday evening of the Championship. Kim, a Troon man and member of the host club, gave the vote of thanks at the wedding of another Troon man Colin Montgomerie and his wife Eimear, and the dinner provided the ideal occasion for Kim to catch up with Europe's number one and his good lady.

President of the South Coast Section, Jim Fry, arrived for the final day of the Championship in style - aboard the Orient Express and wearing one of Arnold Palmer’s blazers. Jim, pictured left, had met the great man in the United States and Palmer presented Jim with the blazer. Fortunately they were of similar sizes!
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**Satisfied Customers:**

- "Every forward thinking Golf Club should have a Juno in their workshop, a truly excellent machine!" - Mr. Mark Jones, Head Greenkeeper, Preston Golf Club.
- "Hunter's relief grinding is far superior to anything I have ever seen, each blade cuts true, the savings are substantial and the cost is minimal!" - Mr. Roger Shaw, Course Manager, Ramside Hall Golf Club.
- "Our sole plates/bottom blades are now lasting between 2-3 times longer than when we were spin grinding" - Mr. Philip Baldock, Head Greenkeeper, The Royal Portrush Golf Club, County Antrim.
- "It is the best piece of machinery this course has ever invested in, a fine machine that I would recommend to anyone" - Mr. John Bashford, Head Greenkeeper of the Green Hotel Golf Club, The Kinross Estate.
- "A quality machine that gives a superb finish to our cylinders, and saves money" - Mr. Derek Green, Head Greenkeeper of Royal Liverpool Golf Club.

**Jupiter, 42" capacity Mower Cylinder and Bottom Blade Grinding Machine. A truly 'precision' grinder, built to last half a century. Used and preferred by Professionals.**

**Juno 36" - Will accommodate every make and type of professional cutting cylinder and bladeknife. Can 'in-situ' grind many greensmower reels. Water cooled (eliminates dust and heat), simple and fast.**

**Experience REEL SAVINGS & MAKE YOUR COURSE A 'CUT' ABOVE THE REST**

**Cut Service Costs! Improve Cutting Standards! Reduce Wasted Downtime!**

Both machines will grind both cylinder and bottom blade! Both have water coolant - No Heat, No Dust!
Both will accurately "Relief" angle grind! Both can "in-situ" grind! Both guaranteed to grind cylinders totally parallel!!
Successful heather management on courses relies on the distance between areas of habitat, writes Dr Alan Gange, School of Biological Sciences, Royal Holloway University of London.

Heathland has become an internationally rare and endangered habitat and is one which has been focused on by conservationists in the last few years. A precise definition of this habitat is difficult to achieve, because it usually defined in terms of its landscape properties. Thus “heathland” can be used to describe an open landscape, generally on nutrient-poor, acid soils with a vegetation dominated by low, woody shrubs of the heather family. The two commonest plant species are usually Ling heather (Calluna) and Cross-leaved heath (Erica). Tall shrubs and trees are usually absent, but other species such as Bracken, Gorse and Broom are often present. In Britain, heathland occurs in lowland and upland areas (such as grouse moors) but this article will concentrate on lowland heaths, because upland areas are in a less perilous condition.

Britain has over 20% of the European heathland, but in Southern England, the area has decreased from 143,250 hectares in 1830 to 39,450 in 1980, a decline of 72%. Much of this land has been used for farming, which elevates the nutrient status of the soil, making it unsuitable for heather growth and this means it is virtually impossible to return the land to its former habitat. Not only has the area of heathland been dramatically reduced, but the habitat has also become greatly fragmented. For example, one has only to read some of the novels by Thomas Hardy to get an idea of the vast tracts of heathland which existed in Dorset during the last century. However, these large areas have now been broken up into about 800 small areas, set in a matrix of forest, farmland and urban land. Due to the loss and fragmentation of habitat, many animal and plant species which live on heathland have become very rare in Britain. For example, the Marsh Gentian, Dartford warbler, smooth snake and a host of invertebrates are restricted to this habitat. Others, such as the sand lizard, nightjar and the Silver-Studded Blue butterfly are characteristic of heathland, but do live elsewhere as well. English Nature have produced a Management Handbook for lowland heaths, but it is interesting that this otherwise excellent publication appears to make no mention of the important role golf clubs can play in the conservation of this habitat. For example, in the area of north-east Surrey, often known as Surrey Heath, there is a great concentration of golf clubs and many of these have areas of heathland on the course. These clubs therefore represent a series of heathland islands, amidst a sea of urban areas.

In recent years, scientists have become aware that an important feature of any habitat conservation is the degree of fragmentation into islands, and the amount of interplay...
Don't get too

ISOLATED

There is metapopulation dynamics, which is between them. The technical term for this subject is metapopulation dynamics, which is much simpler than its name suggests. A metapopulation is simply a system of local populations, connected by dispersing individuals. It consists of a number of patches (islands) in which populations of a species are found. All patches may not be inhabited at any one time. The main benefit a metapopulation has over a group of unconnected populations is that if one population on a patch becomes extinct, then it may become populated again by migrants from another patch, hence maintaining the numbers. If there is no migration between patches, then sooner or later, it is likely that all the patch populations will become extinct and the species will disappear from the whole area. Therefore, it does not matter too much if a habitat is fragmented, so long as the fragments are large enough to support a population at any one time, and that there is migration between the patches. Clearly, therefore, the two factors which are likely to affect the persistence of the overall population in this scenario are the size and degree of isolation of individual patches.

At Royal Holloway, my research group has been studying the invertebrate populations associated with patches of heather on one course at the Berkshire Golf Club. We have measured the size and degree of isolation (distance to the nearest neighbour) of heather patches on this course and have sampled the invertebrate community on the patches. Our aim was to see how the patch size and isolation affected invertebrate diversity, so that we can suggest some guidelines for management practises which can maximise species diversity.

Over a range in patch size from 20m² to 1200m², there was no relation between invertebrate numbers and the area of the patch. Therefore, in terms of maximising invertebrate abundance, there is no advantage in a heather patch being very large. This is an interesting result, and one that at first appears to be counter-intuitive. However, an explanation is that for the insects which occur on heather patches on this course, all the patches were large enough to support viable populations, and once one gets over a critical threshold of patch size, there is then no benefit of the patch being large. We hope to perform more detailed sampling to establish just what the critical threshold patch size actually is for different key species.

Perhaps the most critical finding from this study is the relation between invertebrate density and the degree of isolation of a heather patch. There is a clear negative relation between these two measurements, that is patches which are near to others have a much higher density of animals than do patches which are a long way from others. Therefore, the message from this study is that when managing the areas of heather on a golf course, the patches must not become too isolated. From this study, it appears that patches should not be much more than 100m apart if the density of invertebrates is to be maximised. If a patch of heather dies out, then this may not be too critical for species populations if there are others close by, but if the loss of a patch means that others suddenly become very isolated, this could have serious consequences for the invertebrate species living on those patches.

One may ask why we have concentrated on invertebrates in this study. Apart from being relatively easy to measure, they are also very important links in the food chains which support the vertebrates which also live on heathland. For example, in some parts of the country, the Dartford Warbler populations are now on the increase after successful management of the heathland which led to increased densities of their insect food. A similar argument could be made for nightjars and sand lizards and still further up the food chain, the smooth snake, which is particularly fond of eating lizards!

We hope to extend this study to other courses in the south east of England, to see whether the results found on this course are part of a general pattern. However, our main aim is to extend the work to investigate whether golf courses themselves act as islands in the metapopulation "sea". In areas such as Surrey, many golf clubs are in close proximity to each other, and there is no reason why mobile species such as butterflies, birds and mammals could not migrate from course to course, thereby maintaining their populations.

We know that the areas of heather on a course are sufficient to support viable populations of rare species, for example two courses close to our college in Egham, Surrey have populations of the sand lizard. What we now need to do is to establish whether there is a movement of species from course to course. If there is, then this would be a clear way in which the golfing industry can positively benefit the conservation of endangered habitats. As pressure on land usage becomes ever more acute, I believe that we need to show that tying land up for a long period of time in a golf course development can, if managed in the right way, be extremely beneficial to the environment.

Heather on fairwaylipshook

In areas such as Surrey, many golf clubs are in close proximity to each other, and there is no reason why mobile species such as butterflies, birds and mammals could not migrate from course to course, thereby maintaining their populations'
Raking the bunkers is a time-consuming chore and anything to make the task easier is to be welcomed. HUGH TILLEY examines just what's available.

Lots has been said – mostly by golfers and unprintable – about bunkers – those sand traps designed to make play more interesting.

However they need maintenance and while for the most part this is only to remove foot and pitching marks it is another chore which can consume a considerable amount of time, especially on those courses which seem to be more sand than grass. However there are a limited number of machines designed to mechanise the task although not all bunkers are suitable for mechanisation. Conventional wisdom is that some 70% can be raked by machines, or higher where the bunkers have been designed or adapted for machinery.

All machines have three wheel configuration, but some have greater power and all wheel drive, while in general the less expensive machines only have rear wheel drive and about 10 hp. Some machines are based on existing mower, or all terrain, technology which may make parts more readily available and obsolescence less likely.

Perhaps selection depends upon what is expected of the machine, but many clubs expect to use their machines for some landscaping work – and thus have equipped them with front blades and even centre mounted cultivator rakes to enable them to scarify and push soil and/or sand around. These machines to be used to doze cores off the green and other greens work.

The most important features of a bunker rake is manoeuvrability and this is the main reason for the tricycle format. High clearance and/or short wheelbase also contributes to ease of accessing bunkers. Some machines are fully hydrostatic which should give greater operator convenience and speed of operation – but costs more. Only one operator admitted noticing any lack of power or drive with hydrostatic drive so obviously this is not a problem – although the sample questioned was small. Mechanical drives incorporate variable speed usually with belt and variable diameter pulleys, and while these will need some maintenance and belt replacement they are relatively inexpensive. Speed between bunkers is also an important factor. With all wheel drive models the front wheel drive may be operator selectable, which is an advantage and generally allows for faster inter-bunker travel.

The tyres most often fitted on bunker rakes are ‘knobbies’ and although turf patterns are available these probably do not have the grip necessary for pushing sand etc, around. However where the machine is only used for raking and work on greens they may be a best option.

It is generally suggested that mechanical raking is twice as fast as hand raking, furthermore, and perhaps more important there are important time savings in getting from bunker to bunker. All the machines are US inspired thus some makes are only available with petrol engines, however, such manufacturers claim that modern fuel efficient engines are not expensive to run and are quieter than a diesel, and this seems to be borne out by greenkeepers with experience of both.

Another important factor for consideration in selection may be sand quality, however this is normally set by the course builder. Bunker rakes – like professional golfers – seem to like the sand firm with just the top layer ‘fluffy’. New bunkers with some 100 or 150mm of loose sand can cause some problems for a mechanical rake – and golfers aren’t too keen either. Given time, rain and golfers’ feet and most firm up.

John Deere 1200 Bunker and Field Rake at Barton on Sea GC

Bought in 1991 and used extensively since then, but backed up by an older smaller machine of another make, Barton’s JD1200 is now due to be semi retired and replaced by the newest John Deere 1200A model. However, it has served well and proved totally reliable, according to Course Manager Tony Gadd. Since purchase it has had its 10hp petrol Kawasaki engine re-ringed – in 1995 – and a new clutch installed.

Tony added that a crack in the air cleaner, which was undetected, may have hastened the need to re-ring.

Raking the bunkers is a daily chore, the operator Brian Munden, couldn’t remember a day when the rake had not gone out, and the JD1200 is used for virtually all of the 92 bunkers on the two courses – with the minimum of hand work being needed. The machine was also used when the club was resited and extended, particularly for levelling and working the root zone soil over the greens. It has also been used for some other landscaping work with front plough and centre mounted cultivator.

In particular Tony has found the cultivator useful for breaking
up pans in the bunkers to allow rain through to the underlying drains.

The JD1200 is a two wheel drive non hydrostatic machine with a hand counterbalanced lift of blades and rakes. The new machine will have extra power and Tony admitted that this will be a considerable advantage, however he is still happy with rear wheel traction and hand lift.

Prime of the good points of the machine Tony puts as reliability and although it is petrol powered the Barton club have found it extremely economic to run, and always a good starter.

Other vital advantages listed were the JD back-up and the price – which was well within the club’s budget. The local JD dealer is about ten miles away but always ready to assist at a moment’s notice.

**Chippenham Golf Club with a Ransomes Groom Master**

Chris Sealey, Course Manager at Chippenham, said that it had taken three years to persuade the greens committee of the merits of using a mechanical rake on bunkers, however now the consensus of the players is that it has considerably improved their quality. Chris estimated that mechanising the task has halved the time taken, taking it from being a two man four hour job, to being a one man operation which now allowed one man to work on another job. Alternatively he has the option of letting the operator take the Groom Master round the bunkers with another man following up to tidy up, again with overall time saving and getting clear of rollers sooner.

Another advantage which was commented on was that mechanising the task had ensured that no weeds got a chance to grow in the sand.

Although the Groom Master had been on the course for only a month Chris and his assistants were extremely pleased with it. Duncan Harford, the prime operator of the machine, said the club had tried out all makes before and although it was petrol powered the club have found it extremely economic to run, and always a good starter.

**Other vital advantages listed were the JD back-up and the price – which was well within the club’s budget.**

The Groom Master at Chippenham is a fully hydrostatic drive machine with driver selectable front wheel drive and with hydraulic lift. It looks tidy and very compact, but no comment was sought about ease of servicing.

Chris stated that he had found it important that bunkers be made for mechanical raking, i.e. with minimum corners or steep banking. At Chippenham some hand finishing is required, however no doubt the extent of this will be reduced as experience is gained with the Groom Master and the sand traps are further modified.

Some difficulty has been experienced operating the machine when the sand is not consistently wet or dry, for instance with the surface dry but with wet sand below as this has resulted in the machine producing a wavy surface.

The only service problem has been that the brakes have ‘stuck on’ – and the operator added that he finds the safety switch is ‘annoying’ – because it stops the engine as soon as he gets off the seat. There was a suggestion that despite the safety implication this may get ‘shorted out’.

One of the significant advantages of using the machine is the improved consistency of the sand across the course as all parts are now raked to the same depth. The machine is equipped with blade and cultivator which will allow the club to move sand around. Another feature that Chris has found is that he can operate even if the sand is wet and this will aid drying out.

Bunkers at Chippenham are laid with ‘Terram’ geo-textile over the drains, thus it was important that an even layer of sand is kept over them and that the machine is not operated too deep, but to date this has not been a problem.

The diesel engine option comes with three wheel drive as standard and although the engine is relatively noisy until it is warm no one had voiced complaints about it, however the extra power is noticed. This model is significantly more expensive but it does offer more for the money.

Brian’s last word on the Groom Master was “it’s a brilliant bit of kit”. Chippenham has a simple machinery policy – to buy what is offered a lot of sand but as this had only just been laid it was expecting a lot of the machine to expect it to operate on it, added to which it had been raining just before *Greengrocer International’s* visit, thus getting

**Jacobsen Smithco Easy Ride at Kendleshire GC**

This brand new private parkland course just outside Bristol has just opened up its first nine holes with the second nine anticipated to open shortly. The Smithco Easy Ride was bought ten months ago by course constructor, Adrian Siff, mainly for levelling and working the greens, thus recently appointed Course Manager Kevin Green, had no say in the specification, nor has the machine seen much work on sand, although it had been extensively worked on the site.

Kevin admitted that the Easy Ride had done an excellent job on what it had been asked to do, however, he reserved judgement on its performances elsewhere – and in the sand. Price and simplicity are in favour of the machine which was supplied by local dealer B S Mowers.

The Easy Ride is powered by a Kohler 8hp petrol engine and has two wheel drive with a variator belt drive. To date it has some 142 hours on the clock and had needed a new variator belt, however Kevin said this was extremely quick and easy to replace without needing any dismantling. Maintenance of the whole machine is simple with very good access to the engine and drive.

The course has a lot of sand but as this had only just been laid it was expecting a lot of the machine to expect it to operate on it, added to which it had been raining just before *Greengrocer International’s* visit, thus getting

Duncan Harford gets to grips with the Ransomes Groom Master at Chippenham GC

Kendleshire GC’s Course Manager Kevin Green and the Jacobsen Easy Ride
in and out of the first bunker selected was not easy – and made deep marks.

**Jacobsen Smithco Super Rake at Salisbury & SW Wilts Golf Club**

Salisbury & SW Wilts' new Super Rake is a direct replacement of a previous machine, complete with the minor failings of that machine. However as the previous Super Rake had been on the 27 hole club for five or six years there could have been no major complaints or criticisms about it or its performance – a fact later confirmed in a phone call to Kerran Daly, Course Manager. When photographed the Super Rake had just come back from B S Mowers, the suppliers, who had re-routed the front wheel drive hoses, these chafe on the chassis and had been a problem on previous machine and so were being re-routed in the hope of solving the problem.

At Salisbury the machine is used three times a week on the bunkers of both courses, these have large lips and so only high clearance machines were considered. Kerran said that there were two machines in contention as a replacement. The Jacobsen is seen as a small neat machine which was known to fit the bunkers and it was preferred by the operators. Salisbury's machine is diesel powered with full hydraulics for both lift and transmission. Having hydraulic lift was considered to be far less fatiguing to the operator. Other than raking bunkers the machines are used for the occasional seedbed preparation, but no 'dossing' nor cultivation nor scarifying – Kerran is worried that any cultivation in the bunkers would bring up the chalk base.

**Toro Sand Pro 5000 on the Oxfordshire**

The Oxfordshire has three Sand Pro 5000's – but Course Manager Martin Jones only bought a third and not the whole company, when he found the first so good – he realised that the club was making increasing use of bunker rakes and that the older machines had put in a lot of hours work.

Maintaining the course to the highest of championship standards with professionals extremely critical of every aspect including of the sand has meant that Martin has had to get it right. The 18 hole course has worked its bunker rakes hard and for long hours, particularly because of the standards set, but in addition they have been found extra work on greens aeration and drag matting.

The first machine, bought in August 1992, had clocked up 3271 hours, had parts replaced to the value of 2400 and had consumed some 2716 worth of petrol. The second machine, BR2, was bought in May '93, has run for 2423 hours for a 1447 parts bill and 2200 fuel, while BR3, the March '96 acquisition, with only 206 hours has drunk 445 worth of petrol but only required 21 worth of parts.

Martin said that one reason for the high hours is that the machines have been used extensively with the Toro Pricker Aerator. This is the most undersold item on the list as far as he was concerned, yet he said that on the Oxfordshire's sand based greens, which only need the thatch to be opened up, this implement was absolutely ideal. It bolts on the back of the Sand Pros and is a fairly heavy bit of kit with an axle with small blades – giving an aeration depth of up to about 50mm – although the aim at Thame is only to penetrate about 38mm deep. The other use for the machines has been drag matting, they have a tow hitch and two "T" shaped brackets to allow the mat to roll and be carried.

Another option which has impressed has been the spring tines which Martin said gave as good a finish as the standard rakes. The club has replaced its straight tines on the rakes with ordinary bolts, which are much cheaper than original parts, but perhaps more important on The Oxfordshire are not as long.

Although the machines are used extensively on greens, Martin said he did not believe that turf tyres were necessary – the knobbies did not mark the grass as the bunker rakes were very light and have wide low pressure tyres. He also commented on the fact that as he got used to the machines he was finding more and more work for them.

Another comment was that he was certain that he should do more aeration of the greens – perhaps even daily whereas in fact it was only being carried out weekly. The advantage of the pricker aerator was that it did not make any damage on the greens – thus it can be carried out regularly.

The course has 145 bunkers and these are raked virtually daily. Early in the course's history compacting the sand had been necessary, and while the club had hired plate compactors, Martin said that the most effective means of compaction has proved to be wheeling with the Sand Pros.

The machines are powered by Briggs & Stratton Vanguard 'Vee' twin engines which Martin said are very economic and quiet. All have operator selected three wheel drive, and hydraulic lift on the rakes. Overall the machines have proved to be extremely reliable.

Martin Jones, Course Manager at Oxfordshire GC, and Toro Sand Pro
NEW PRODUCTS

Overcoming the traditional objections of workers in low risk areas to wearing head protection provided by employers because of its perceived discomfort and inconvenience – the new First Base from Protector combines full shift comfort for the wearer with the fashion appeal of a Baseball cap.

Protection against bumps and scrapes is provided by the moulded ABS inner skull cap, with the option of an additional self-adhesive, foam disk spacer if required.

The First Base's low profile also makes it suitable for use with Protector earmuffs and the design is compatible with wearing goggles. Fully adjustable, First Base has air vents which improve comfort by allowing a cooling airflow inside the cap.

For employers who like their staff to carry a corporate identity, the branding and colour options of First Base are unlimited. Both printed and embroidered images are options and minimum production runs are surprisingly low.

For further information contact Protector Technologies Tel: 01252 342353.

You've all heard about "under-soil heating systems" but what about "over-soil heating systems"? Liquid Sod have come up with the inflatable, frameless Growing Dome. In essence, the Dome covers the smallest of greens or tees in order to carry out repair work to turf in bad weather conditions, establish seeds at any time of the year, or lay brand new turf at exactly the right temperature and humidity – with enough room inside to walk around and use machinery – he can do so. The Liquid Sod Growing Dome has also been used on standard sized golf greens and tees, bowling greens, cricket pitches and several other areas requiring renovation – in the UK and in Europe.

The Growing Dome is an "over-soil heating system" and equally, it can be an "over-soil cooling system".

What is a Liquid Sod inflatable, frameless Growing Dome and how does it work? The Dome is made from an extremely strong, large piece of plastic which is durable, waterproof and semi-transparent. Warm or cool air is blown into the Dome by one or two (depending on the size of the Dome) relatively quietly running fans to inflate the Dome to its full capacity by way of a process very similar to the way air is blown into a hot air balloon.

Temperatures and humidity inside the Dome are gauged and maintained by a thermostatically controlled air heating/cooling system which is supplied with the Dome.

The material used is imported from the USA and is tough enough to hold a man's weight while he works on top of the Dome.

Liquid Sod make Domes to any size or shape required. The Dome is delivered in kit form and erected on-site by the Liquid Sod team and the customer is shown how to carry out the erecting and dismantling process.

If you want to know more

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Keeping turf in great condition frequently involves a battle against the elements. Put yourself in the driving seat by using Greenmaster. With ten granular and five new liquid formulations to choose from you can exactly match your sward’s requirements whether it be for a balanced feed, a high K product, added trace elements or a special tonic. And to give you maximum flexibility our liquids can all be tank mixed to provide additional ratios. Put yourself in control with Greenmaster and you’ll see the difference immediately. For more information call our Technical Services Manager on 01473 203143 or contact your local Area Sales Manager.
NEW PRODUCTS

about the Growing Dome, you can contact Liquid Sod direct on 01963 251129.

Ransomes has introduced an updated version of its renowned Ryan GA30 self propelled ride-on aerator designed for use by golf greenkeepers, groundstaff and turf maintenance professionals.

Introduced to satisfy customers' requests and the latest health and safety requirements and the principal upgrades for this season focus on the GA30's power unit and steering system. Superseding the previously-used Kohler Magnum engine is the new 18hp Kohler Command unit which delivers a smoother, quieter power output with improved fuel efficiency.

A conventional steering wheel replaces the "cow-horn" steering handles previously fitted. The new steering wheel, together with geared reduction within the steering system, provides improved operation, manoeuvrability and operator convenience. All 1997 Ryan GA30's also have full CE approval and feature additional safety cut-out switches for safer operation and use.

The Ryan GA30 costs £12,955 fitted with 10mm coring tines and twin windrowing blades.

For further information Tel: 01473 270000.

It either grows too quickly, or not at all. Two common problems for the landscaping professional. But not any more.

Barenbrug has the answer to both problems.

Bar Slow Motion features the lowest short-growth varieties listed on the STRI Turf Seed Guide; contains 40% Barkoel (a new species), a crested hair grass and is ideal for any low maintenance area. Its highly compact sward has an excellent colour all year round. And with the addition of perennial ryegrass, the mixture offers even better wear tolerance and quicker establishment; yet it still reduces maintenance costs by up to half.

Bar Shade, meanwhile, is a specialist mixture, containing Barcampsia (turfed hairgrass), designed to offer the best performance in any areas shaded by trees, fences, buildings and so forth.

For further information Tel: 01359 270766.

- A facility which will enhance any golf course and be readily appreciated by members and visitors is the patented Maestro Golfstream.
  This combines a fresh water drinking fountain with a special washer for golf balls. By placing Golfstream units in the tee areas, golfers will be able to revive themselves with a refreshing drink of water and, at the same time, ensure that their golf balls are clean before teeing off.
  The drinking fountain features a stainless steel bowl and bubbler for durability and hygiene. Operation is by means of a push button.
  The ball washer is behind the fountain and bowl and uses water directly from the fountain so it never runs dry. The entire unit is 960mm high. The Golfstream is easy to install and can be connected to the existing water supply.
  Manufactured of mild steel, it is robust and is ideal for use close to the clubhouse or in remote tee areas.
  For further Information Tel: 0181 302-4035.

- The Moisture Smart from Amenity Technology has been designed to replicate evapotranspiration losses based upon the Penman equation using evaporation from an enclosed container. The moisture smart is small enough to place out of the way near to the playing surface without interfering with play. The rotating gauge on the top of the unit makes it easy to record what day the reading was last taken. The unit can also be placed in the path of the sprinkler unit so it never runs dry. The entire unit is 960mm high.
  The Golfstream is easy to install and can be connected to the existing water supply.
  Manufactured of mild steel, it is robust and is ideal for use close to the clubhouse or in remote tee areas.
  For further information Tel: 01536 417777.

- Following a thorough review of the Alien Power Equipment range of Walkover Sprayers in conjunction with TeeJet Spray Products a number of enhancements have been made.
  Firstly all the diaphragm check valves (DCV) were converted to the high quality range of Chem-Saver DCV's from Spraying Systems Company. This range of DCV's is the popular choice of most quality sprayer manufacturers world wide and is noted for its accurate and consistent shut off. They are made of nylon for long life, with self aligning caps to take the full range of TeeJet Nozzles. Secondly and probably most importantly the spray nozzles were changed to the new Patented Turbo FloodJet. An inherent problem with normal annular type nozzles is the "heavy edges" which can be seen as striping. This new nozzle from TeeJet overcomes these problems. It has a pre orifice design to produce larger droplets, to reduce the problem of drift off the target spray area, and a special turbulence chamber to create a more uniform spray pattern giving a more even distribution of chemical application. Also the large round orifice resists blocking. The polymer spray nozzles are colour coded to the proposed International Standards Organisation (ISO) colour coding system like to be introduced by all spray tip manufacturers over the next few years.
  For further information Tel: 01235 515400.

- The 1997 Professional Hayterette has been ergonomically re-designed with a reduced wheelbase and re-angled handle bars giving better balance and manoeuvrability.

  The long life aluminium finned deck ensures the grass is in optimum cutting position, with the friction disc protecting the crankshaft from impact damage. Swinging blades are available as an option to the cutterbar. The height of cut is controlled by a single lever control, giving a height of cut between 13mm and 70mm, and a cutting width of 460mm.

  With wheels that can be locked in a raised position to avoid movement during transportation, and powered by a Honda GX 140A engine, this machine is well suited to the varied duties of local authority and contract work, and is designed to cope with all types of grass, particularly in the rough, where access is limited by trees or shrubbery.

  For further information Tel: 01279 723444.

- SCH (Supplies) Limited has introduced a new powered rotary scarifier to its range of attachments for tow behind Estate and Garden tractors. The Rotary Raker 2 is designed to remove the build up of dead thatch and moss from grassed areas.

  For further information Tel: 01473 328272.

Kawasaki Mules are lightweight taskmasters built to tackle the toughest utility duties. Helping you do your job with the greatest speed, ease and comfort.

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“An invaluable source of management skills training”

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ALDWARK MANOR COURSES

Week 1: 6 – 10 October 1997
MANAGING PEOPLE MODULE 1

This course introduces a range of interpersonal skills needed in supervisory management and includes: time management, teamwork, leadership skills and computers in greenkeeping management.

Week 2: 13 – 17 October 1997
MANAGING PEOPLE MODULE 2

This course builds on the knowledge gained in Module 1 and includes: guidance skills, appraisals, grievance and discipline skills, employment protection, the use of computers in management.

Week 3: 20 – 24 October 1997
MANAGING OPERATIONS AND RESOURCES

This course looks at financial planning, project management and the effective use of resources, project management, planning and control of resources and the use of computers in greenkeeping management.

Week 4: 3 – 7 November 1997
MANAGING INFORMATION

This course looks at methods of communicating information to others and includes: writing memos and letters, writing reports, storage and retrieval of information, electronic communication, managing meetings, oral communication and the use of computers in communication.

Week 5: 10 – 14 November 1997
MANAGING GOLF COURSE DEVELOPMENT

This level 4 course is aimed mainly at those delegates who have completed Weeks 1 to 4 and looks at: golf course design, construction methods, Health and Safety considerations, ecological management, integrated management plans and the use of computers in greenkeeping management.

Cost of each course, including four nights’ accommodation, food and all tuition:
BIGGA members £399 + VAT. Non BIGGA members £470 + VAT (which includes one year’s BIGGA membership.)

REGIONAL COURSES

GOLF COURSE DESIGN, CONSTRUCTION AND ESTABLISHMENT

This two day workshop, based on the extremely successful workshop at Harrogate, is designed to introduce delegates to the history of golf course architecture, philosophies and styles of golf course architecture, conceptual design and planning considerations. Groups of delegates then produce an outline design followed by a detailed design, including: greens, tees, irrigation and drainage and project costing and budget.

Venues
¬ The Bournemouth Moat House Hotel, Bournemouth – Monday 13 and Tuesday 14 October 1997.
¬ Airth Castle Hotel, Airth by Falkirk – Monday 27 and Tuesday 28 October 1997.
¬ West Retford Hotel, Retford – Wednesday 26 and Thursday 27 November 1997.

RECRUITMENT, SELECTION AND INTERVIEWING

This two day Supervisory Management Course at NVQ Level 3 looks at the problems of staff recruitment and includes: interviewing skills, equal opportunities, employment law, sex discrimination, practical interviewing, selecting the appropriate candidate, listening skills and questioning skills, advertising.

Venues
¬ The George Hotel, Crawley, Surrey – Tuesday 21 and Wednesday 22 October 1997.
¬ Airth Castle Hotel, Airth by Falkirk – Wednesday 29 and Thursday 30 October 1997.
¬ The Manor House Hotel, Moretenhampstead – Monday 3 and Tuesday 4 November 1997.
¬ Finnstown Hotel, Dublin – Tuesday 18 and Wednesday 19 November 1997.
¬ The Dunkenhalgh Hotel, Accrington, Wednesday 26 and Thursday 27 November 1997.

LEADERSHIP, TEAM BRIEFINGS, MOTIVATION

This course at NVQ Level 3 introduces greenkeepers to the basics of leadership and includes: leadership skills for every situation, training and coaching for success, the mysteries of
BIGGA courses are the best way to boost your career

**Aldwark and Regional Supervisory Management Courses**

The deadline for applications to attend the Aldwark Manor and/or Regional Supervisory Management Courses is fast approaching. The advertisement opposite gives full details of all courses and how to apply, however, I thought that it would be useful to describe how these courses are administered. Planning for the next series of courses commences as soon as the current series is complete. Provision bookings are made with Aldwark Manor and at hotels throughout the Regions. Lecturers are contacted and provisionally booked to run sessions later in the year and advertising material is produced. You may ask why we have everything prepared so early ie booking forms appear in May when courses do not run until October/November. The reason is that venues become booked very quickly and lecturers may be approached by other organisations if we do not contact them soon enough. We then set deadlines for entry ie 29 August for 1997 courses so that we can cancel or amalgamate courses when the response is poor. For example, we ran three out of five courses at Aldwark Manor last year. If we do not give hotels a reasonable amount of notice, they charge us for food and accommodation even if we do not use it. These course are run for your benefit and, thanks to the contributors to the BIGGA Education and Development Fund they are run at a cost which is far lower than the cost of comparable courses. For example, a two day Essential Supervisory Management Course, covering the same subject matter as the BIGGA course was advertised at £195. This price did not include accommodation. The message is simple. Use these courses or lose them.

**The Learning Experience 1998**

Planning for the Learning Experience 1998, in association with Ransomes, is almost complete and the Programme should be ready for printing in August. The latest speaker to accept his invitation is Mr Jaime Ortiz Patino, the owner of Valderrama, who will talk about the forthcoming Ryder Cup. A new feature of the National Education conference will be the Greenkeeper Question Time Panel. This will give you the chance to ask questions either on the day or by submitting them in advance. Watch out for further details in future editions of Greenkeeper International. Finally, the BTME Seminars are on the move again, back to the Royal Hall.

**Toro Student of the Year Competition**

By the time you read this magazine, I will have completed five arduous, but enjoyable days (and nights), interviewing 32 students, to select this year's Toro Student of the Year. I always look on this competition as being one of the 'perks' of this job as I get to meet the future Head Greenkeepers/Course Managers at the start of their careers, when it is gratifying to see their spirit and enthusiasm. Watch out for the results in the next issue of Greenkeeper International.

---

**Golf Course Health and Safety Management**

This course is an essential requirement for anyone wanting to manage a golf course in a safe and healthy manner and stay within the law. The course includes: health and safety law, producing a policy document, COSHH assessments, hearing conservation, protective clothing, accident prevention, first aid requirements and waste management.

**Essential Supervisory Management Skills for Greenkeepers**

This course at N/SVQ Level 3 is a must for all greenkeepers who are or are about to become supervisors. It covers the basic essentials of supervisory management including: basic leadership, assertive communication, team building, listening and questioning skills, dealing with problems, grievance and discipline and warnings and reprimands.

**Venues**
- Old Ship Hotel, Brighton – Thursday 16 and Friday 17 October 1997.
- Finnstown Hotel, Dublin – Tuesday 18 and Wednesday 19 November 1997.
- The Chesford Grange Hotel, Kenilworth – Monday 1 and Tuesday 2 December 1997.

**Cost**
Cost of each of the above courses, which includes all tuition, meals and accommodation: BIGGA members £75. Non BIGGA members £145 (which also includes one year's BIGGA membership.)

**Greenkeeper International**

August 1997 27
WELCOME TO THE 1998 BTME QUIZ!

Come to the show FREE!

This is your opportunity as a Greenkeeper to attend the 1998 show ABSOLUTELY FREE!

The BTME 98 will again be held in Harrogate, with the National Education Conference starting on Monday January 19 and the Exhibition and Educational Seminar Programme commencing on Wednesday January 21. The show represents the ideal forum for Greenkeepers to meet both the trade and other Greenkeepers. All you have to do to stand a chance of winning one of the three superb prizes is to answer six questions - two in this issue, two more in September and the final two in October's issue. Then send in your answers with the entry form that will be printed in the October edition and you could be one of our lucky winners!

AUGUST QUESTIONS

1. What date does the BIGGA Turf Management Exhibition start?
2. What date does the BIGGA National Education Conference start?

Don't miss your chance to attend the largest Indoor turf management exhibition in Europe.

FIRST PRIZE: Return rail travel from anywhere in the UK plus three night's accommodation at a top hotel in Harrogate and entry to all the education seminar sessions.
SECOND PRIZE: Return rail travel from anywhere in the UK plus two night's accommodation in a top Harrogate hotel and entry to all the education seminar sessions.
THIRD PRIZE: Return rail travel from anywhere in the UK plus one night's accommodation in a top Harrogate hotel and entry to all education seminar sessions.

For more information about BTME 98 contact Amanda Mayo or James McEvoy on 01347 836581

Letters

Greenkeeper's despair at lack of sympathy by his golf club

I am writing to you in desperation as my career as a Head Greenkeeper and my whole life seems to have collapsed and my only crime is that I worked too hard.

I am a 34-year-old family man and started my career in greenkeeping on a course near home in April 1985. I really enjoyed my time there and progressed through the ranks to become Deputy Head Greenkeeper and also obtained college qualifications.

In April '94 I moved to a nine hole course in a neighbouring town as Head Greenkeeper but unfortunately this position turned out to be a lot less desirable prospect than it seemed at my initial interview and appointment. The whole club was a political battleground and I suffered three years of intense pressure on my career and had to work in a very manual fashion.

After a while I started having problems with my back which became more serious and crippling as time went on until, in January this year, after having MRT scans etc I was diagnosed as having degenerative Spondylothesis, a condition where the disc in the spine has worn away.

I informed the committee of my condition and that I now had to wear a lumbar support while I waited for a spinal fusion operation. To my dismay they worked me even harder giving me more manual construction work etc until in April of this year I could not carry on any longer as it was literally crippling me. I am now off sick, awaiting my operation in agony.

Due to the nature of my contract my employers would only pay me four weeks' wages. I've therefore gone from a Head Greenkeeper salary to statutory sick pay of £64 per week which has devastated me and my family. It seems that I am being punished for doing no wrong.

I have made various claims such as personal accident insurance etc., but have been rejected as they all say that I suffered progressive damage and can't pin down a specific incident. The worst may be to come as I am not 100% sure that after my operation in September I will be able to return to the manual type of work involved in greenkeeping.

I would be most grateful if anyone reading this letter could offer me advice on my current situation, or perhaps be able to redirect my greenkeeping knowledge into another career linked with the sports turf industry such as a technical sales representative, for example, as I am sure there must be a pot of gold at the end of the rainbow in such a large industry.

Tee markers: Rules don't make sense

I read with interest Mr Gordon Moir's letter in the June issue of Greenkeeper International on the recent amendment by CONGU to the positioning of permanent tee markers.

Before commenting specifically on this issue, I would make a general observation and that is that the reasons for the changes to the Standard Scratch Score and Handicapping Scheme 1983 have in my opinion been poorly communicated to clubs. Also there appears to have been very little if any consultation with interested bodies such as BIGGA and AGCS.

As a result some of the changes have not been well received particularly the proposed change to the position of permanent tee markers.
For old times’ sake

I wonder if any readers can help me?

For 40 years I was in turn draughtsman, designer, works manager, managing director, chairman and owner of H Pattisson & Co. Ltd, before we sold the family firm four years ago.

In the ‘30s, ‘40s and ‘50s we made hundreds of the Pattisson Golf Course Tractors at Stanmore Hill Works — big machines with wide steel spiked rear wheels (or track grip pneumatic tyres) for pulling the gang mowers of the time for fairway cutting, greens and other jobs on the course and sports grounds, powered by Ford 24 HP engines.

Does anyone knows the whereabouts of one that I could buy for old times sake as a memento of my past? I am sure that there is a Club somewhere with one at the back of the shed kept in reserve or even working still.

The enclosed photo will be recognised by any of the old school of greenkeepers although sadly most of them will have retired by now, like me!

I would like to give it pride of place on my small estate here working or not.

Ken Hemingway
Coles
Higher Hulham Rd
Exmouth, Devon EX8 5DZ

NVQs have to be made to work

I feel compelled to write in response to the article printed in the April issue of Greenkeeper International on the London Golf Club and, in particular, the comments made by Steve Jones regarding NVQs and their delivery at Colleges such as Plumpton.

NVQs do not have a grading system for passing and I, like Steve, feel that this is a major flaw in the process. How does a potential employer differentiate between applicants for a job vacancy at the outset if all applicants have “passed” their NVQ? Only an in-depth job interview and college reference will help with the selection process.

While some might hanker for the old times, NVQs are here to stay and they have to be improved over time and made to work. Standards are not low everywhere and here I take exception to Steve’s comments. There are problems with standardising standards, but this is down to individual college assessors in the workplace and, in particular, the internal and external verifiers.

No standards are provided with NVQ literature or, at present, with the GTC Training Manual, so it is up to individuals to interpret the performance criteria that they are assessing.

If standards of maintenance vary from golf course to golf course then it is not surprising that standards of student NVQ attainment vary from course to course and college to college — enter the verifier! The more assessors there are the more difficult it is for the verifier to monitor the standards that have not been specified anywhere! This surely should have been the starting point for all practical assessments. Standards must be task specific and every student must reach the standard. We have them stated at Plumpton and those working the system are happy to work with them. I would anticipate that this is the case in most other colleges and indeed with assessors in the workplace or might it be that they are testing purely subjectively on what they know is a professional job? Unfortunately professionalism alone is not an acceptable, measurable, justifiable yardstick for determining an NVQ pass.

I share Steve Jones’ comment that a London Club apprenticeship may well not be equitable with an NVQ in years to come — but NVQs are supposed to be work based and there must be more liaison between clubs and colleges who should essentially be considered as the major provider of underpinning knowledge if the whole ethos of NVQs is to have a standing in the industry by the year 2000, if not before.

David Blackmuir
Head of Horticulture
Plumpton College
Why setting up your own workshop at your club could be the best move you'll make, writes ROLAND TAYLOR.

The transition of golf from a relatively exclusive sport to one that is now enjoyed by increasing numbers has, for most clubs led to a complete appraisal of course management.

All the media hype the game now receives has meant players are seeking higher standards. This places pressure on course managers and greenkeepers to meet these requirements.

The combination of this and the number of golfers using the courses has created a situation where keeping equipment in tip top condition and working is of paramount importance.

As a result, more clubs are now taking the decision to set up their own service department. While each club has its reasons for deciding this action, a number of external influences also play a major part.

Over recent years we have seen the demise of many professional outdoor power equipment specialist service departments.

This in turn has placed greater pressure on those remaining. Also, manufacturers and suppliers have increased their distributors' areas. While one is sure that every effort is made to provide service back-up, often available resources can be severely stretched, especially at the height of the mowing season.

For a greenkeeper with a machine down and a club tournament in the offing, time is of the essence. In this situation those clubs with in-house facilities can deal with the problem quickly and efficiently and have the equipment back in operation with minimum loss of time.

One major aspect that could have an important bearing on the decision to install workshop facilities is the Health & Safety Provision and Use of Work Equipment Regulations.

Under section 6 Maintenance it states the following:
1. Every employer shall ensure that work equipment is maintained in an efficient state, working order and good repair
2. Every employer shall ensure that where any machinery has a maintenance log it is kept up to date

In addition, the regulations cover routine and planned preventive maintenance.

Another factor that could influence the decision to go for a workshop is the size and range of machinery the club operates. With what is available in today's market it is easy to have a fleet valued well into six figures and more. In these cases there is every justification to insure this investment is maintained to the highest of standards.

Setting up a workshop facility is a big step, so where does one start? First the management has to be convinced of the viability of the exercise and the expense is justified.

Presentation is all important and on laying out the reasons there are a number of areas that need to be covered. It should be remembered that this is not a short term investment, so many of the costs can be spread over a period of years and the equipment can be depreciated against profit.

As part of the case, the cost of maintaining the fleet needs to be analysed.

Invoices for the last five years will supply much of this information. As a very rough guide when predicting future expenditure the hourly rate charged by specialists is between £30 and £40 per hour, depending on the location.

The objectives also need to be set out and these should include:
- Keeping equipment working with minimum of downtime.
- Maintaining machinery in tip top and safe condition. (re Health & Safety)
- Taking care of the investment. Well-maintained machinery should command a higher price when it comes to being sold.
- Better management of maintenance costs.
- Having greater control on day-to-day course management.

These are just some suggestions of areas to cover. In addition each course manager or greenkeeper will have their reasons and requirements for putting forward the proposal.

Getting a workshop operational will also need to be included in the plan. A location will be required. It is not just a question of setting-up in an old shed or barn. An area within the existing machinery storage facility could be suitable or a purpose built building might be necessary. Where ever it is sited there are some basic requirements if one is to get achieve the maximum benefit. These include concrete floor, plenty of light, heating, good ventilation, weather proof, security; easy access for all machinery and a hard surface area outside for cleaning. It does not have to be a massive structure, just big enough to take the largest machine in the fleet. There should be with enough additional space to work in comfortably plus space for benches, grinders and other workshop equipment.

Equipment
Initially there are some essential pieces of equipment that will be needed.

Apart from wall benches, the installation of a hydraulic bench is highly recommended. It eliminates lifting and thus reduces the chances of back injury as well as making for easier access which in
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- turn increases efficiency. In addition it makes for a better working environment since there is nothing worse than having to crawl round on cold concrete floor under a machine.

A blade grinder is another essential. Cleanliness is all important, especially where engines and hydraulics are concerned so a washing unit for components should be on the shopping list. For cleaning machines before they come into the workshop a pressure washer is ideal and there are plenty of models available. All these can be bought second-hand so it is worth keeping a look-out in trade journals. There are plenty of other items that will eventually be required such as a welder, drills and equipment to test an engine’s electronics.

One important area is the need for specific tools for one particular machine. All the suppliers will have a list of these. They make the job easier and therefore faster to complete.

As far as actual spanners and other tools are concerned, generally a service fitter will have a set. In cases where these have to be supplied it needs to be a comprehensive range should be bought.

It now comes to finding the right person to run your maintenance and service workshops and how much he is likely to want to be paid. This will depend how qualified he is, as a rough guide a top man can at present earn between £7 and £10 per hour.

There are a number of colleges including Evesham and Merrist Wood that run excellent outdoor power equipment service courses. It would be worth contacting one of the when looking for a service fitter. Such courses should also be considered if you are thinking of training a member of staff to look after the machinery.

On the question of training, assistance can be sought from the manufacturers and suppliers of the equipment, and especially the engines, you operate, regarding service courses, repair and replacement parts manuals. A majority will be able to provide this form of support and back-up.

Setting up a workshop from scratch can be a relatively expensive operation so it is worth considering any possible way of helping to off set the costs. One of these could be a joint venture with any neighbouring golf courses.

With the ever increasing pressure Course Managers and greenkeepers find themselves under, having an in-house workshop is of major benefit and certainly worth considering if you have the machinery to warrant the investment.

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Protect yourself

by Tony Rees MIOSH, Health & Safety Consultant and Senior Instructor with ATB-Landbase Training Services

The Personal Protective Equipment (PPE) at work regulations and guidance notes set out accepted principles for use of protective equipment where the risk cannot be controlled by technical means.

Equipment must be designed and manufactured to standards defined by the Personal Protective Equipment (EC Directive) Regulation 1992 (S.I. No 3139).

The Regulations DO NOT APPLY where specific requirements for COSHH, Lead, Asbestos, Ionising Radiations, Noise and Construction (Head Protection) have effect. Old legislation is repealed in favour of the new regulations, including in particular The Protection of Eyes Regulations.

GENERAL REQUIREMENTS
- PPE does not include overalls, uniform or ordinary work clothes (Reg 2)
- PPE may only be used when technical measures are not effective (Reg 4.1)
- PPE must be suitable to the individual, appropriate for the risk, AND comply with EC Standards (Reg 4)
- Combinations of PPE to be compatible for use together (Reg 5)
- Employers must make assessments of equipment to determine suitability (Reg 6)
- Employers must ensure PPE is in good repair and hygienic condition (Reg 7)
- Appropriate accommodation must be provided to store PPE not in use (Reg 8)
- Information, Instruction and training must be given to all PPE users (Reg 9)
- Employees must take reasonable care in using PPE and report defects (Regs 1-11)

The Guidance Note indicates activities where personal protection should be provided, with information on maintenance, storage and replacement criteria.

INTRODUCTION

Working Clothes: The wearing of sensible clothing suitable for the job is a major aid to safety. People working at moving machinery should take precautions against items of apparel getting trapped, and gloves, long sleeves or clothing with loose or torn ends should not be worn near machinery. Long hair should be protected by suitable headgear. Loose ties, scarves, key chains, jewellery etc. - individual, appropriate for the risk, AND comply with EC Standards (Reg 4).

In all cases, protective clothing must be selected to match the nature of the hazard. Comfort of the wearer, though important, is secondary to the level of protection as a selection criterion. Information on protection levels is available from manufacturers and suppliers of Protective Equipment.

British Standards: The British Standards Institution prepares standards for products and issues licences to manufacturers only after thorough inspection, and testing of individual products. Manufacturers awarded licences are required to display one or both of the following certification marks on all products for which the relevant licenses have been issued:
- The Kitemark gives assurance that a product complies in all respects with the requirements of the relevant British Standard.
- The Safety Mark gives assurance that a product complies with the safety aspects of a British Standard, or a British Standard concerned mainly with safety.

Marking: From 30 June 1995 virtually all PPE should carry a C.E. Mark.

Up to that date, the relevant British Standard will continue to apply. After 30 June 1995 only PPE marked with C.E. should be purchased. Most manufacturers will display the old BS Kite Mark and the new C.E. Marking.

Older PPE purchased before 30 June 1995 can still be used providing it is still suitable for the use it is being put in. In all instances a reputable supplier should be used for all PPE requirements.

Part 1: Do not forget the PPE should only be used as a last resort.

BASIC EQUIPMENT

Safety Footwear: The provision and wearing of safety boots or shoes to comply with BS 1870: Part 1: 1986 (amended) and BS 953 is not obligatory under the Factories Act 1961, but in some circumstances their use may well be reasonably practicable under the Health and Safety at Work etc Act 1974. In foundries, the Factories (Protective Footwear and Gaits) Regulations, 1971 lay down a general requirement to protect the feet against burns and impact risks.

Some government establishments, and industrial and commercial undertakings have made the wearing of safety footwear a condition of employment for persons employed within certain areas of work.

Eye Protection: As with all forms of protective equipment, eyes protection must be selected on the basis of the hazard being guarded against.

The main hazards to the eyes are impact of particles, dust, chemical splashes, molten metal, gases, radiation and laser beams.

Eye protection must conform to British Standard 2092 and will be marked accordingly on both the lens and housing with "BS 2092". Suffix letters indicate the type of hazard protection. C, D, G on the housing of goggles indicate protection against Chemical Splash, Dust and Gas respectively.

M on lens and housing indicates protection against Molten Metal. In addition, a suffix number on lenses and housing indicates the degree of impact protection, with Grade 1 affording greater protection than Grade 2. Grade 1 impact protection is available only with goggles or face shields; spectacles offering protection only to general purpose and impact Grade 2 standards.

Gloves or gloves made of welding or similar industrial operations should comply with BS679 for optical qualities and exposure to heat, moisture and ultra violet radiation. BS1542 deals with equipment for eye, face and neck protection against radiation arising during welding or similar operations. BS4309 and BS7666 for spectacles, goggles and face shields and helmet with minimum requirements for thermal conductivity, electrical insulation and size of filters.

Eye Irrigation: Chemicals or gases in the eyes are best removed by a copious supply of clean filtered cold water, (cold to reduce the pain of burning) in a manner which can be administered by the injured person himself, or by a colleague.

Hand Protection: Gloves are available which will protect the hands from cuts, punctures, heat and chemical burns, electric shock, irritants and contaminants. The type of glove will depend on the hazards involved. (It is important to remember that gloves should not be used at moving machines, eg. drilling machines).

Protection against grazes when handling materials if offered by simple leather and/or cotton gloves or gloves made of PVC supported fabric. Gloves with rubberised palm/fingers are available to assist where objects are slippery. Protection against extremes of temperature is provided by gloves of insulating materials. Rubber gloves manufactured to BS697 will provide protection against electric shock when working on live systems. Synthetic rubber (neoprene and nitrile) gloves are available in various grades to give protection against a range of chemical hazards.

Limited protection against irritant and degreasing chemicals is offered by a range of barrier...
creams. When barrier creams are removed, the application of an "after work" cream may be advisable to prevent drying and chapping of skin.

**Protective Headwear:** This area is covered by The Construction (Head Protection) Regulations 1989, making it mandatory for hard hats to be worn during construction work wherever there is a risk of injury to the head. There are two types of safety helmet available; these are the broad brim pattern (or "hat"), and helmets having a peak at the front only (or "cap"). The four main kinds of material used in their manufacture are fibre glass, aluminium alloy, phenolic resin laminated material and various plastic materials. Appearance and weight are factors to be considered although the main consideration must be the risk against which they are supplied. These risks include:

- Abnormal heat where aluminium alloy is perhaps best, but where laminated or fibre glass helmets may be satisfactory.
- Falling objects and debris, and sideways crushing for instance between two bogies in mining premises.
- Impact from falling objects, their function is simply to protect against bumping the head, for example, in a vehicle inspection pit.

Other types of head protection are security guard helmets, which also offer protection against impact from falling objects, and canister which is carried by a sling on the back or side of the wearer. These respirators give considerably more protection than the cartridge type against larger concentrations of certain specified toxic gases or vapours, generally of 1% concentration or less. It is imperative always to select the correct canister for use against any particular gas, and to make sure that it is not used for longer than the manufacturers recommended maximum effective life (about 30 to 45 minutes). Both cartridge and canister respirators can be fitted with particular filters to give protection against various combinations of dust and vapour. Positive pressure should be used for respirators connected by a tube to a battery operated suction unit, carried by the wearer in a harness. The air is drawn by the suction unit through the filters and fed to the face piece at a controlled flow.

The ori-nasal face piece may be replaced by a full face piece, or various hoods or blouses. The excess of air escaping around the side of the face piece prevents leakage inwards and helps to keep the operator cool during strenuous work. They are used mainly against toxic dusts.

**HEARING PROTECTORS**

Hearing protectors should be provided in accordance with the Noise at Work Regulations 1989. They should be regarded as a short term measure until noise control is fitted or where the noise level is not in active use. All type of ear muffs are likely to be damaged, and it is an advantage if individual parts, especially the seals, can be replaced separately and easily.

**PERSONAL BODY PROTECTION**

There are no general requirements relating to protective garments or clothing under the Factories Act 1961. Certain items of clothing are, however, required by Regulations or Orders made under the Act; there is no corresponding provision in the Offices, Shops and Railway Premises Act.

When protective clothing is necessary, attention should be given to selecting the right type for the required purpose. Where different types of equipment are available, work people should be consulted, encouraged to try them out and state their preferences. If work people play a part in selection, they will be more likely to cooperate in using the clothes. Persons required to use them should be told why the clothing is provided and when they ought to wear it.

In some cases there is a requirement for protection in wet conditions, for instance that provided by waterproof aprons, or suitable overalls for dirty or potentially dangerous dust work; or where there is a danger from acids, oils, caustic substances or other hazardous chemicals, suitable overalls which may need to be chemical resistant must be provided. Additionally in a few instances head covering may be required. Suitable arrangements should be made for the care, maintenance and storage of protective clothing. Where dangerous dust exits, such as asbestos, more details of the items to be supplied are set out in the Regulations. With some categories of clothing it is most important that great care is exercised in handling contaminated garments which are being removed or changed.

Clothing to give protection against intense heat is sometimes required and there are various materials available for this purpose.

**Respirators:** Respirators are designed to filter out the contaminants from workplace air. Various types are available:

- **Cartridge type respirators** are also mainly of the ori-nasal type and give protection against low concentrations of certain relatively non-toxic gases and vapours. Cartridges must be specific to the hazard present, and must be changed at appropriate intervals to maintain protection.

- **Canister type respirators** incorporate a full face piece, connected by a tube to a replaceable canister which is carried by a sling on the back or side of the wearer. These respirators give considerably more protection than the cartridge type against larger concentrations of certain specified toxic gases or vapours, generally of 1% concentration or less. It is imperative always to select the correct canister for use against any particular gas, and to make sure that it is not used for longer than the manufacturers recommended maximum effective life (about 30 to 45 minutes). Both cartridge and canister respirators can be fitted with particular filters to give protection against various combinations of dust and vapour. Positive pressure should be used for respirators connected by a tube to a battery operated suction unit, carried by the wearer in a harness. The air is drawn by the suction unit through the filters and fed to the face piece at a controlled flow.

The ori-nasal face piece may be replaced by a full face piece, or various hoods or blouses. The excess of air escaping around the side of the face piece prevents leakage inwards and helps to keep the operator cool during strenuous work. They are used mainly against toxic dusts.
Around the Green

Keeping in touch with news and comment from the regions

SCOTTISH REGION
Elliott Small
Tel: 01259 731445

North
A glut of new members to the Section to report, from Duff House Royal comes Lenny Thompson and Steven Mitchell; from Loch Ness Golf Club, Invernes; James Roscoe comes in from Peterhead, and James Howe from Arbroath. Two new student members, Douglas Strang and Steven Myers join us and Neil Kidd, of Keith, rejoins the Section. Finally David Duggan, of Ullapool, but working at Corrstown GC, County Dublin, also joins us. I hope you all and hope to meet you at Section events in the near future.

The Scottish Championships were not so successful for the Section this year, weather was great the course was very enjoyable, but our scores could not beat the field this time. Only a couple of minor place's, I'm afraid. Mind you, the West Section certainly had some masked men present on the day and Stewart Taylor's 63 was a fantastic score to win the title.

This month at Tulliallan we have the Norrie Whytock Trophy and hopefully our team of Chairman Hugh Melatchie, Peterhead; Scott Williams, Peterculter; Chris Cumming, Fortrose, and Collin Burgess, Forres, will retain the Trophy won last year at Elie.

Steve Macintosh, Blairgowrie, on one of his regular returns to the North successfully defended the Ross-shire County Championship, but was beaten in a play off for the North District Championship.

In this last week we have experienced some horrendous wet weather and Morarshy was hit the worst. Turriff GC was one of the worst affected and had to close the course during what is probably the busiest time for them. We hope George Geddes and his team were able to get things sorted satisfactorily once the flood water had subsided. The job is hard enough without extra problems like this. Indeed we hope all courses in the area have recovered by now, and were not to badly harmed. I am just glad that my course is on sand and the water drains away so quickly.

Finally we wish anyone from the Section going to Cooden Beach for the BIGGA Championships all the best.

Iain Macleod

Central
The date for the visit to Stewart's Turf Farm at Grahamston, near Kinross, has been arranged for Wednesday, October 1. Full details will be mailed out to those who returned their forms expressing an interest in attending, so if you wish to come along, but "forlornly" left the form in the bag stage right through to harvesting.

By the time you read this, the visit to Parkhead Stadium will probably have taken place – Friday, August 8 – so I will give you an update in next month's issue.

The Inter-Club Tournament is progressing well, with most of the matches being played within the given dates, at the moment Rangemount A, Tulliallan A and Auchterarder are leading in their respective leagues. If anyone wishes, road maps can be supplied with the locations of the various clubs taking part as it appears there is a great wide world outside the East of Fife.

New members are rather thin on the ground this month with only one new one new, nevertheless it's a warm welcome to Jeffrey Clark, from Gleneagles. Hopefully Jeffrey will attend some of our forthcoming events, and who knows, he may even encourage some of his work mates to accompany him. While I am on about get in touch with me as soon as possible. Anyone wishing to bring along a member of their club committee is most welcome to do so as it will give them a chance to see what is involved in taking turf from the seed in the bag stage right through to harvesting.

Peter Brown, Head Greenkeeper at Falkland GC, in Fife, had been nominated to represent the section in the Toro Award for Excellence in Greenkeeping and we all wish him well in the next stage of the competition. Hope all goes well for you, Peter.

From all accounts (The Andy O'Hara version) the football match between an Andy O'Hara select and the East Fife Supporters Club was some game, from here on you'll have to bear with me!

The star man was Andy O'Hara and the winning goal, in a high scoring game, was a fantastic solo effort from, you've guessed it, Andy. Andy O'Hara. This is his first time in the media and all he says is this is his dream team and to badly harmed. I am just glad that my course is on sand and the water drains away so quickly.

Finally we wish anyone from the Section going to Cooden Beach for the BIGGA Championships all the best.

Iain Macleod

West
What's happening may be the question you ask with an empty column last month. Well at this time of the year very little is going on so why write about nothing. Wait a minute! I just did, and who says the art of writing is dead.

Just a couple of things to mention, the recent outing at Craigmiller Park proved a great day with a lot of success from our Section. The West Section won the team prize and congratulations to them to badly harmed. I am just glad that my course is on sand and the water drains away so quickly.

Finally we wish anyone from the Section going to Cooden Beach for the BIGGA Championships all the best.

Iain Macleod

the committee, have done most to promote the section at events throughout the year at both national and local level. The prize for each member is an expenses paid trip to the BTME and seminmars at Harrogate in January. If you have any thoughts on who should be given this award, please let me know as soon as possible.

You will notice that there are a few "please let me knows" throughout this month's news, but nobody ever does, (except ANDY O'HARA aaaaaaaaaahhhhhhhhhhhhh) so if you get fed up reading the same stuff every month DON'T BLAME ME! John Crawford
are well run and expensive to arrange. Your support for these is required, courses involve: 1) Golf course design, construction and establishment (Howard Swan and Simon Gidman) 2) Recruitment, selection and interviewing (Brin Bendon, Vector Training).

These are all essential in today's working environment to aid the manager and assistant with staff employment and construction projects, so make a point of contacting Elliot Small or Ronnie Bunting to book a spot or two. Prices are £75 for each two day course, like everybody else have accommodation and tuition. What better value can you get?

The Hayter competition recently at Lochgreen saw three qualifiers from the West section to represent Scotland. Graeme Shearer, Stuart Taylor and Alex Wilson, Kirkhill. Well done and all the best. The outing to be held at Hilton Park is sure to be busy so make a point to sent your entry. John Robertson and his staff will have the course in tip top order, of that you can be positive. The results of the five a side tournament and any football arrangements will be in next month's issue.

J Stuart Taylor

NORTHERN REGION

Bob Lupton
Tel: 01782 750539

North West

"I could have done without this today, the grass is growing like mad." This was the greeting I received from John Berry as I arrived at Penrith for the annual Cumbria Cup Tournament on June 18. Needless to say the course was in immaculate condition thanks to John and his staff, who like everybody else have been flat out trying to keep the grass down. Once again Course Care sponsored the tournament which is open mainly to the North West members who work in the Cumbria area. The weather was a little mixed but we managed to complete the days golf before the rain arrived, the day was completed with a lovely meal and the prize presentation.

The prize winners were: 0-9 J. Berry; 10-18 G. Forbes, C. Clark, M. Heading, B. Cross; 19-28 S. Thompson, P. Szikzaker, J. Daven- port, M. Doano. The top scorer of the day was G. Forbes with 37 points. Many thanks to Penrith GC for allowing us the courtesy of the course, Ian Holoran for organising the day, and to Course Care for once again kindly sponsoring the day.

Wednesday June 25 just a few days after mid-summer's day, Longridge Golf Club was the venue for the Summer tournament. Summer; the rain came at us like stair-rods for most of the day, the wind helping to make things more difficult (that's my excuse) but good scores were recorded. The course which is situat- ed on a long high ridge, was in excellent condition thanks to John Nicholson and his staff. The finishing hole on this course must be one of the steepest climbs in golf, and certainly made me feel my age. Perhaps John could replace a couple of the ball washers with oxygen bottles, before our next visit?

The results of the Reg Vickers Trophy are as follows: - 1. J. Coar 81-67; 2. M. Broughton 87-69; 3. A. Davies 89-69; 4. P. Simpson 83-70; 5. M. Davie 84-72; Guest J. Walker 72. A great day was had by all, and I would like to thank Longridge GC for allowing us the courtesy of the course, the Captain for presenting the prizes, Pauline and Roy for a fantastic meal and service and Barbara for making us so welcome. I would also like to thank Gary Warrall Ground Care, Rigby Taylor, Rite Feed and Cheshire Turf Machin- ery for helping to swell the prize table.

I was unfortunately unable to attend the Spring Tournament at Didsbury GC, on May 1 so therefore unable to see the prize table, but from what I understand so many companies supported us that almost everybody left with a prize. I would like to thank the following companies for their support: Strike Top Turf, Shar- rocks, Richard Campey, Bath- gates, Cheshire Turf Machinary, Gary Worrall Ground Care, Tri- dent, Peter Barber, Martin broth- ers, Turner Ground Care, Construct Golf, Burrows, Far- mura, British Seed Houses, Ruf- ford Top Dress, RiteFeed, Aitkins, Gem and Acorn Equipment.

In a few days from now I will be taking the N/W qualifiers up to the regional final at Matfen Hall GC, Newcastle, by mini bus, the qualifiers are; Paul Pearse, Sean Moon, Frank Plat, Lee McAndrew, Andrew Bennett, Brian Turner, Scott Moseley, Stephen Oultram, Alec Davies. Let's hope in my new report that they have all qualified for the grand final at Ganton GC in Sep- tember. Any news, view, or queries give me a ring on 0151 7245412.

Bert Cross

Northern

President's Day this year was held at South Leeds GC. The weather was not too good, but everyone turned up and braved the elements. Mr Mel Gay, Club President, did an excellent job in arranging the catering and the prizes for the day, many thanks to Mr Richard Kay, of Greentech, for sponsoring the prizes. A very unusual sight on the day was to see our National Chairman, Pat Murphy, playing a few holes. I was informed that the ten holes he played were the first for about 20 years! Thanks Pat for coming along to the event and kindly presenting the prizes after the meal.


Thank you to all of the trade lads who brought along a raffle prize and to the committee for their help in making the day run smoothly. Finally, thanks to Mel for the beer provided to us all at the half way point. Hope you enjoyed "your" day as much as the rest of us.

At our recent section meeting held at Bradford GC a few mat- ters were discussed. The 1998 Annual Dinner Dance is once more to be held at Bradford GC. This is due to the 1997 event being such a success and also central for the majority of the people who attend.

Ideas for social events would be greatly appreciated from members, possibilities suggested at the meeting were ten pin bowling, go-karting, football matches and clay pigeon shoot- ing. If anybody has any good ideas, please let me know.

This year's Invitation Day Tour- nament is to be held at Skippton Golf Club on Wednesday September 3 at 1pm. The closing date for this event will be two weeks before the event. This will give me time to organise fully the event before I go on holiday. So please send in your deposits along with your partner's name well in advance to prevent any problems prior to the event.

Places for the annual "Roses" match against the North West Section are now filled. The team for this year is:- Dave Collins, Simon Heppenstall, Mick Harris, Richard Harris, Tony Gerrard, Ken Purdy, Alan Baxter, Gary Pot- ter, Colin Garnett, Telford Jarvis, Marcus Cordingley, Richard Thompson, Robin Smith, Dennis Cockburn, Res: Keith Lumb.

Rigby Taylors are organising a trip to Tills Turf of Brigg some- time in September. Anybody wishing to go on this visit must contact Mike Brear on 01943 683856. There is a limit of 30 and applies only to Head Green- keepers. Book early to avoid dis- appointment.

If anyone has any news from around the section please do not hesitate to contact me at 1 Cock- ley Meadows, Kirkheaton, Hud- dersfield, HD5 0LA. Please note my telephone number has changed to 01484 317813.

Simon Heppenstall

Cleveland

Neil Austwick of Bedale GC, is now the new Head Greenkeeper at Masham GC and Kevin Scarse has started at Bedale on a youth training scheme.

Dr James Beard, from Texas USA, was the speaker at a semi- nar sponsored by Scotts Fertiliser, held at the Ramside Hotel GC, Durham, in May. The many sub- jects covered like hydrophobic dry patch, organic root zones, composed organic matter, and problems mainly associated with root zones, of high sand content. Good husbandry, ie. do not cut too short, combined with regular brushing, scarifying, aeration and top dressing, as and when required. A lot of good sense was said, which will relieve young Head Greenkeepers.

Thanks to Scotts, Aitkins and Roger Shaw, Course Manager at Ramside GC.

Lush growing weather is keep- ing me very busy in the Cleve- land area. George Salabank (student) temporary employment at Eaglescliffe GC.

Bruce Burnell

GREENKEEPER INTERNATIONAL August 1997 37
Midland

Firstly, I would like to congratulate the members who qualified for the Hayter finals from the regional final at a rather wet Warwickshire GC, the round was forced to be cut to nine holes due to the server weather. The qualifiers were as follows – Tony Cheese, Dartmouth GC; Julian Chesn, Three Hammers Golf Centre; Martin Jones, Bridgnorth GC, well done!

The summer tournament is to be played on July 7 at the Worcester Golf and Country Club and the results from this will be listed in next month’s report. The closing date for entries for the Autumn tournament is the September 1 and this will be played at North Worcester GC on the October 2. The annual greenkeeper of the year as you are probably aware is now sponsored by Toro and each section has to submit there entry, last year the entrant from our Section eventually won this title. He, of course, was Cedric Gough from Broadway GC. The nomination has now been sent from our Section to the national board, I will keep you informed and give you the name of the lucky person once the assessing has taken place.

I would like to remind members of our regional seminar for 97 this will be held at Northampton Rugby Club on November 19 further information regarding speakers and itinerary will be sent to all members nearer the date. Jonathan Wood

Mid Anglia

The Regional Final of the Hayter Challenge Tournament was held at The Warwickshire, towards the end of June. The weather, unfortunately, took its toll on the competition as it had to be curtailed after nine holes due to heavy rain making the course unplayable. Ironically the greens, which were built on a sand construction were fine, but the rest of the course could not take the downpours. Jason Hatton, of Brocket Hall GC, was the only Section member to qualify for the National Final, however we shall need more Trade members to support the match next year if it is to be a success. Finally a special thank-you should go to Dave Leatherland for helping to organise the day. This year’s Hayter regional final played at The Warwickshire on June 25 was unfortunately played in dreadful weather conditions, and had to be restricted to nine holes. The Section, however, finished in third place with four of our members qualifying for the National Final, this year held at Ganton. The region will be represented by the following four Section members, Andrew Duncan, Antony Bindley, Ian Needham and Mark Bindley. May I also take this opportunity to wish all members and the Region the very best of luck in the Final. This year’s annual East Midlands versus East of England Golf match will take place on Wednesday August 20 at Melton Mowbray GC. The 1st Tee has been reserved from 3.45pm, and the format for the day is a Four-ball Better-Ball match play. A team of 10 members will be required and anybody wishing to represent the Section can contact me, and I will forward you an entry form. Before the end of the month all members should have received their Autumn Tournament entry form. Any member who has not can contact me, and I will gladly post a copy onto you.

The Tournament is hosted by Chevin GC on Wednesday September 3. Antony Bindley

South East

Derek Farrington
Tel: 01903 260956

Sussex

The summer meeting was held at Haywards Heath GC, although those who played might of been forgiven for thinking it was March. It was pouring with rain when we arrived at 7am and was still pouring after the morning round. Thankfully it cleared up by the time we set off for the afternoon round, but by this time the weather had taken its toll on all the competitors. Before I give the results I must congratulate Peter Ray and his staff for presenting the course so well, having three weeks of rain prior to holding a BIGGA event is not what you need.

The results of the morning round sponsored by Farmura were as follows: 1. Rob Hudson – net 73; 2. Chris Reed – net 74; 3. Paul McDowell – net 79. Third place was won on count back from Derek Coomber, Tony Bremmer and Mike Ring. The trade prize was won with net 71 by Phil Chalk. As you can see by the score the weather had its effect.

The afternoon Stableford was sponsored by John Shaw (Machinery) Limited and the results were as follows: 1. Jon Hill; 2. Charlie Messenger; 3. Tony Bremmer; Trade prize Ian Smith. Thanks to Brian Hughes, Club Captain, for presenting the prizes and all the staff of Haywards Heath for making it a successful day despite the rain.

Lastly, it was nice to see Chris Allen at the lunch and let’s hope its not too long before you are back playing Chris. Colin Cathie

East Anglia


I must mention Colin Rushbrook who swam ever so well upon receiving his prize. He thanked his mentor Bob Che-sham, his caddy Roger “Panny” Eane and David Bedwetter for the use of his video.

Our thanks must go to Uncle George for presenting a first rate paddy field, the Captain of Felix-towe ferry, whose name escapes me, the food was good, (rice) wonder who grew that?

Seriously, it was a good day and a lot of effort went into it, our thanks to Mr Cutting the CPT for presenting the prizes which were donated by: Bartram Mowers, Collier Turf Care, Rushbrooks, Sisis, Rigby Taylor, Turf Actant, CMW, and Mr Cutting. Thank you George and Felixtowe for a super day out.

The Hayter Challenge Regional Final took place at Ham Manor and our Ian Martin Myson won the Section. The match was abandoned after nine holes and Martin was already five under par with a net 31 well done my son (excuse the pun) next stop Ganton. Just to finish of way back in May Rushbrooks, Sisis, Levingtons and Rhone-Polene sponsored a terrific golf day at Brett Vale GC. On behalf of all who went I would wonder who grew that?

ANTONY BINDLEY

SOUTH EAST REGION

Derek Farrington
Tel: 01903 260956

Sussex

The summer meeting was held at Haywards Heath GC, although those who played might of been forgiven for thinking it was March. It was pouring with rain when we arrived at 7am and was still pouring after the morning round. Thankfully it cleared up by the time we set off for the afternoon round, but by this time the weather had taken its toll on all the competitors. Before I give the results I must congratulate Peter Ray and his staff for presenting the course so well, having three weeks of rain prior to holding a BIGGA event is not what you need.

The results of the morning round sponsored by Farmura were as follows: 1. Rob Hudson – net 73; 2. Chris Reed – net 74; 3. Paul McDowell – net 79. Third place was won on count back from Derek Coomber, Tony Bremmer and Mike Ring. The trade prize was won with net 71 by Phil Chalk. As you can see by the score the weather had its effect.

The afternoon Stableford was sponsored by John Shaw (Machinery) Limited and the results were as follows: 1. Jon Hill; 2. Charlie Messenger; 3. Tony Bremmer; Trade prize Ian Smith. Thanks to Brian Hughes, Club Captain, for presenting the prizes and all the staff of Haywards Heath for making it a successful day despite the rain.

Lastly, it was nice to see Chris Allen at the lunch and let’s hope its not too long before you are back playing Chris. Colin Cathie

East Anglia


I must mention Colin Rushbrook who swam ever so well upon receiving his prize. He thanked his mentor Bob Che-sham, his caddy Roger “Panny” Eane and David Bedwetter for the use of his video.

Our thanks must go to Uncle George for presenting a first rate paddy field, the Captain of Felix-towe ferry, whose name escapes me, the food was good, (rice) wonder who grew that?

Seriously, it was a good day and a lot of effort went into it, our thanks to Mr Cutting the CPT for presenting the prizes which were donated by: Bartram Mowers, Collier Turf Care, Rushbrooks, Sisis, Rigby Taylor, Turf Actant, CMW, and Mr Cutting. Thank you George and Felixtowe for a super day out.

The Hayter Challenge Regional Final took place at Ham Manor and our Ian Martin Myson won the Section. The match was abandoned after nine holes and Martin was already five under par with a net 31 well done my son (excuse the pun) next stop Ganton. Just to finish of way back in May Rushbrooks, Sisis, Levingtons and Rhone-Polene sponsored a terrific golf day at Brett Vale GC. On behalf of all who went I would wonder who grew that?
like to say thank you. It was appreciated.

Our East Anglia Section is doing nicely thank you and if there is anyone just over the borders like, Cambridgeshire, Norfolk, Essex, Suffolk who would like to join our happy band just give Ian Willett a ring on 01842 754241. It is a good day out at a reasonable price, but you must have a sense of humour and a good set of waterproofs.

Mark Lathrope

Essex

A rather quite month in Essex Clubhaus Plc. now own Bentham Hall, Staplefort, Abbotts and Three Rivers Golf Club, course manager Ray Mitchell at Belton hall tells me he is holding a seniors tour event with highlights on Sky TV.

On the education front Writtle College are now offering two new courses, NVQ as a series of short courses, inviting students to attend as few or many of the courses they require Higher National Certificates in Horticulture Sports Turf Science. This course will be held mainly in the winter months, for more details contact either Mark or Brenda at the college. BIGGA Regional Supervisory and Management two day course 14th-15th October at the Blue Boar Hotel, Maldon. For further information contact Ken or Sami on 01347838581.

Dates for your diary:- Friday December 12, Dinner Dance - Details to follow. Thursday August 14, Golf Day - The Warren GC, sponsored by P Tuckwill Ltd. Thursday September 25, Seminar - Writtle College. Thursday October 9, Golf Day - Stock Brook Manor GC.

Dave Wells

SOUTH WEST AND SOUTH WALES REGION
Paula Humphries
Tel: 01363 82777

South West

June saw the South West area host the regional final of the Haytor challenge for the South West and South Wales at Burnham and Berrow. All the competitors were greeted by Scott MacCallum and our Chairman Pat Murphy who visited all the Regional finals. Just as welcoming was the weather which turned out to be one of the few sunny and calm days in the so-called month of June. Despite the near perfect conditions our region didn't come up with the usual plethora of scintillating performances. Nevertheless A. Knight in category 2 and J. Cooper in category 3 have qualified for the trip to Ganton and may the best of luck go with them. The secret of playing Ganton is to hit the ball very long and very straight and to hole all of your putts. So I hope that bit of advice will give you confidence. The greens at Burnham were their usual perfection thanks to Jock Millar and his staff. I don't care where one plays in this world, you won't get better surfaces than those with their blend of bent, fescue and that type of fine poa that the likes of Barenbrug et al would kill to be able to grow and market. One sees the developed creeping bent monocultures of America but after a days play the greens we played on were as sure, fast and as unspiked as they were in the morning and that's something you do not see at Augusta.

An excellent meal and the prize giving rounded off a very enjoyable day although it was tinged with a degree of regret that Haytor's will not be sponsoring next year's event. Our thanks must go to Gordon and Marion for their starting, checking in, score counting and organisation etc. for which we are all very grateful.

Later in the month a hand picked, highly select team of the finest golfers of the South West greenkeepers were amassed to take on a group of elderly, slightly arthritic secretaries carrying about 40 stone of beer gut between them. We lost two matches to three. However, the ensuing post mortem concluded that the secretaries won by way of their low stress jobs, the inordinate amount of time they spend playing golf and also the fact that they can choose their own handicaps to suit the condition of their liver on any one particular day. Despite this humiliation a delightful day was had by all and sundry on Ivor Scoones' immaculate course at Long Ashton. So good was the condition that I actually overheard some of the long standing members in the bar remark that the greens were the best they had ever known them and these members looked like they had been playing them for a good 90 years.

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AD REF 130
Around the Green

This match was our Captain, Tim Dohernetts, last as he is leaving the industry to follow a different career. Everyone wishes him the best of luck for the future and would like to thank him for all his past help. We would also like to thank Awoncrop for providing the wine on the table and the prizes for this match, all of which is very much appreciated.

It was interesting listening to the secretaries during our excellent dinner reflecting on how their job has changed over the years and how gone are the days when the secretary was an ex-military type who would spend his days herding hares at the members. A great pity that, after all someone’s got to do it.

Marc Haring

South Coast

Our autumn golf meeting will be held at Barton on Sea GC on Thursday, October 9, now shown in your programmes, as October 3. The competition will be an 18 hole Stableford, all entries complete with current handicaps, should be addressed to:- Tony Gadd, Cherry Trees, Lymington Road, Milford on Sea, Hants, S041 OQL. Tel: 01590 643746.

The cost of the days events will be made known later, all entries to be with Tony by first post Tuesday, September 30, also on September 3 we have our annual match against the South West Section. Last year we only managed to halve the match. However, we still retain the trophy, lets have a good win this year lads, and make sure of retaining the trophy. This year we’re on home ground at High Post GC, all those wishing to be selected for the team contact Tony.

The Regional Finals of the Hayter National Tournament were held at Burnham and Berrow on June 11th. By the reports I have had, everyone had a good day and thoroughly enjoyed themselves. The South Coast did not fair too well this year I’m afraid, the only qualifier we had was Phil and the very best of luck in the National Final at Ganton GC on September 18. On behalf of the section qualifiers I would like to thank Hayter’s for their support, the Captain and Committee for allowing the tournament to be held at Burnham & Berrow, the caterers, who I am told provided a superb meal, the man above for providing a perfect sunny day. Thanks also to the organisers from the Region. Every-thing was spot on and no hiccups. Last but not least Jock Millan and his staff, who presented the course in fantastic condition – the greens were out of this world, it just goes to show that experience really does count. Well done Jock.

Jeff Drake has asked me to give another mention about the trip to the London Golf Club, as I said in last month’s magazine, Jeff requires names as soon as possible so that he knows the size of the coach to book. At the moment there is no restriction on numbers, however we do need your names so that we can get things organised in plenty of time. To refresh your memory as the trip will be on November 6, all of you who wish to make the trip contact Jeff on 01722 503938. I would imagine the coach would start in the Bournemouth area, up through Southampton across Hampshire, Sussex on to Seven Oaks in Kent. If we get good support further into December then we will have to reconsider our start point, it will be a good day out, I have no doubt there will be a stop on the way for refreshments (liquid or otherwise).

During the month of June I had the proud task of visiting a number of golf courses in our Section, this was part of the selection process of the Toro Award for Excellence in Greenkeeping. After the write up in the magazine regarding the award, there were seven nominations in our section, out of the seven nominations three Head Greenkeepers/Course Managers filled out the application forms. At the three courses I visited I found the applicants to be very proud of their courses and their achievements. This made it very difficult to select the winner as each course was in excellent condition on the day of my visit and was all extremely well managed, however at the end of the day your committee decided that Trevor Smith, the Course Manager from Canford Magna, should be our nomination from the South Coast Section.

Trevor will now go through to the regional selection finals and hopefully to the national finals at Aldwark. Congratulations, Trevor and all the best in the remainder of the competition. At this point on behalf of the Section I would like to thank Toro for sponsoring this award, the overall winner will travel to the States for a visit to the Toro factory and the American Trade Show. The overall winner’s club will receive a Toro Greens Machine, courtesy of Toro, so as you can see gentlemen those of you who did not fill in your application forms have missed out on a hell of a lot.

Ken Lodge

Devon & Cornwall

I’d like to start my report this month by congratulating Robert Brewer on his recent appointment as Director of Golf at St Mellion International, also congratulations and good luck go to Terry Farkins of Dartmouth Golf & Country Club on being nominated the Section’s representative for the Rothe Poulenc & Supaturf final of the new Toro Excellence in Greenkeeping award. As promised last month I can now give you details of our forthcoming winter meetings:- The Roffeys meeting, October 8; Bowood GC; The Devon Garden Machinery meeting, November 12, Woodbury G & CC; The PJ Flegg meeting, December 10, Okehampton GC; The Barenbrug meeting, February 4, Bude GC; The Avoncrop meeting, March 4, Staddon Heights GC; The Rhone Poulenc & Supaturf meeting, April 1, West Cornwall GC.

The golfing format for these meetings will stay the same as previous years, with the sponsor of the day giving a ten minute presentation on their products. Once again the Section is indebted to all our sponsors for their support.

I have also finalised our educational speakers for our winter meetings:- Roffeys meeting speaker – Cannington College, subject Winter Golf; DGM meeting, AGM; PJ Flegg meeting, Entertainer; Barenbrug meeting, Robert Brewer, subject, Business Planning for Greenkeeping; Avoncrop meeting, Robert Laycock, Grass Leaf tissue analysis – Necessary or Not; Rhone Poulenc & Supaturf meeting Cornwall Wildlife, Ecological Management Plan.

Richard Whymann

South Wales

It is with great sadness that I should inform you of the tragic loss of one of our oldest and most respected members, Ted Thompson, Ted, formerly of the St Pierre Golf & Country Club, was an ardent supporter of BIGGA and all we stand for. Those with good memories will remember that he sent his apologies to last year’s AGM, with a footnote stating that his absence was only his second in 33 years of supporting BIGGA and the earlier associations. Ted will be sorely missed by all those who knew him. He was a true gentleman and a friend to everybody. My personal thanks to Phil Swain who attended the funeral on our behalf not only to represent the association, for Phil was one of Ted’s nearest and dearest friends.

I was one of the lucky ones invited by my local Dealer “Power Cut” of Carmarthen who had the pleasure of attending the first ever John Deere European Feedback ’97 programme, held in Bruchsal, Germany. In my previous report, I mentioned that we were asking by John Deere to assess 34 pieces of machinery at five different stations, around the golf course and give unbiased feedback via questionnaires relating to build quality, ease of use, ease of adjustment, comparison with others, etc. of each machine. An excellent trip, despite the early starts, was it really only two days, it felt more like a week. My sincere thanks to both Malcolm Rees, proprietor of “Power Cut” and also Huw Thomas for their hospitality. To Steve, the bagman! For the entertainment and especially the way to create your very own DIY picnic! (He knows who he is.) A good time was had by all, some new friends made and some old acquaintances renewed. Many thanks John Deere!

Congratulations to our only qualifier for the Hayter Finals to be held at Ganton GC on September 18. Good Luck Darly, do us proud. Good luck also to Steve Price, Steve has been appointed Head Greenkeeper at the new Garratt Park GC near Ammanford. The new council owned, Parkland Course has been challenged to all categories of golfer. Congratulations to Mr JDB Thomas and Pencoed College for inviting us to take part in their College Open Day, last month. At the college we had on display, BIGGA merchandise, videos, books, etc. As well as a highly trained team of BIGGA promotional personnel, although not as pretty as the Miracle Professional Lady Ready and willing to answer questions regarding the association and relating to membership, worthwhile event, never the less. My thanks to those who helped out, namely Mike Williams and David Ward.

Peter Lacey
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The frustrated cry, "This course is too difficult" after hours of thwarted effort can be heard so often by keen and dedicated golfers of the last 20 years when playing on some of the older, great courses of the world.

A course being too difficult, objectively, is really quite rare. There are always large areas on a fairway where a shot can land with impunity. This may mean the sacrifice of a stroke but if one is prepared not to listen to that seductive voice of your alter ego...
to go for broke, then this sacrifice should be seen as a quite normal reduction of your available number of strokes which is calculated on a handicap based on one's prowess. There is no law that says that 18 pars are compulsory for every golfer. You would, when playing tennis, not expect to play like Sampras, who hits the ball more often and harder over the net than most, and yet play tennis on the same sized court with the same height of the net and both enjoy playing the game.

In most games and sports, not only power counts, but even more cunning, strategy, patience, playing within your limits which you know best yourself.

Establish your own pars, bogeys and double bogeys before you go out with honest modesty, stick to those and you will find not only few courses are difficult but also that you are winning most of your battles.

Too difficult according to my experience means unfair and for a golf architect to be accused of unfair design really hurts and should send him running back to the drawing board. Unfair design implies, presenting the golfer with difficulties that are illogical, not to be circumvented, the punishment for a not quite perfect shot not fitting the crime, and not providing the opportunity for the basic chess-like manoeuvring which is such a decisive factor in golf.

This unfairness sometimes gets gimmicky; unfortunately one finds at times that a golf course designer has not sufficient knowledge and experience of the game itself and the wish to be different (and therefore hopefully known) runs away from the subtle dictates of the game and the environment.

I'm afraid having to confess an innate dislike for, and consider unfair, the gimmickiness appearance of revetted bunkers with vertical walls. On seaside courses, with prevailing western winds, with bunkers facing East, revetting and fairly steep walls to keep the sand in place can be justified, but does one need vertical walls, to achieve this aim, which will never give such bunkers the appearance of having been created by wind erosion and look utterly unnatural, like a wound in nature, are expensive to build and will often give the unfortunate golfer who may have just failed to clear such a bunker another "punishment not fitting the crime" with unfair, if not unplayable lies.

I have played at Muirfield since 1946 but yet had to play so often sideways or backwards out of bunkers than during my last visit. My three partners and myself played three rounds which meant between us 216 holes and at least 40 times or 20% during which a recovery from a bunker in the direction of the hole was impossible.

I know that on the short 13th this has always been the case and is one of the features of the course but to have vertically or revetted bunker walls on practically every second hole of this beautiful course seems out of order. Never could it have been the intention of the Good Saint Andrews to punish unfairly in situations which are out of context with the surroundings. If there is a general feeling that the top golfer should be punished for inaccuracy, do so by other fair and not foul means.

To put too punishing bunkers for slightly wayward shots lacks imagination. There are more subtle and architecturally better and more natural ways to make a course difficult and strategically more demanding.

A bunker should look natural, indeed as if shaped by wind and erosion (even if there is no particular exposure to winds!)

The revetted bunker with near vertical walls has certainly no place on non-seaside courses (sometimes on flat "powder" courses like in the Netherlands a more elaborate bunker construction on the "lee" side has a point) as they are costly to build and too blatantly man-made.

In such situations the epitaph "unfair" is indeed justified.

Pine Valley, considered to be the most difficult course in the world, can also be "mastered" by using one's head and relying on strategy. If anywhere, here one has to swallow one's pride and be prepared to give a few strokes to Par. I ought to know as it took me at least 10 rounds of humiliation (including taking nine strokes to get out of a particular pot-bunker on the 10th, the Devil's Arse hole) to allow modesty to prevail and accept scores varying from 78 to 87! Strategy is the key to a good score: Accepting to play for a probable Bogy with a putting change for a par, instead of an unlikely, albeit heroic par effort which may end in disaster.

A good golf course should never be penal, but reward good course management with the occasional situation where courage and heroic inspiration gets an extra reward.

Neither is exaggerated length necessary nor to be recommended: A short Par 4 cleverly defended, punishes impetuosity more than a long long Par 5, and will give the not so good but cunning player a chance to get his Par. After all, there are no hard and fast rules in measurement at a golf course. Unlike football fields, cricket pitches or tennis courts, a golf course is dictated by Nature and the creative feeling of the architect to follow the contours and idiosyncrasies of the site. That makes golf a special sport, not only the game itself but the enormous variety of one's environment.

This also applies to the often heard criticism that one should not have two consecutive Par 5's or Par 3's? Although, three Par 4's in a row are considered acceptable! If nature gives a marvellous opportunity to make a really good hole one should take it regardless of the length. Equally one should not forego this opportunity in order to increase the SSS and thereby sacrifice a good hole. A golf course should demand to be played with sound and strategic thinking, which will be rewarded if the architect has done his homework.

Sometimes one hears the complaint that a Par 4 is too long to get on in two shots for the average player. Where is it written than getting on the green in the hole, for "the par player", required number of strokes should apply to the average player? The fact that John Daly can hit a green of a 632 yard hole in two shots does not make that hole a Par 4! Once I happened to overhear a conversation in the locker room after the opening of a course designed by myself. Apparently the course was found difficult, but one reasonably senior golfer did not quite agree, "provided you use your head". This remark made my day!
Over the last fifteen years, greenkeepers and groundsmen have come to rely on good old Super Mosstox.

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Watermation has undergone some major changes in the past 18 months as Scott MacCallum found out when he visited one of the latest companies to join BIGGA’s Golden Key programme.

Watermation has been a name synonymous with golf irrigation since installing its first fully automatic system at Sundridge Park in Kent over 27 years ago. It is the company’s proud boast that almost every Open Championship venue which possesses automatic irrigation has a Watermation system.

It is a record of which any company would be proud but, under new ownership and management introduced at the beginning of 1996, the company is now looking ahead to greater success rather than harbouring any thoughts of resting on its laurels.

“Over the years Bill Hawthorn and Robin Sitwell built up a superb brand name,” explained Managing Director Ray Lewis, of the two original founders of the company. “Go to almost any golf course in the country and you’ll get some sort of indication of Watermation’s influence. We’ve got a very good and a very loyal client base,” explained Ray, who showed his own prowess on the golf course by captaining Watermation’s team to victory on BIGGA’S 10th anniversary golf day.

Ray bought into Watermation when both Bill and Robin expressed a desire to wind down from the rigours of running the company and, as well as a shrewd business brain, Ray has brought a brand of enthusiasm and drive to the company which has seen major changes in the last 18 months.

“The first thing the managers and I did was have a brain storming session which lasted 12 hours during which ideas, potential improvements and criticisms were aired. These were all fed into a computer by everyone independently so no-one knew where they had come from. Everyone knew what the problems were but no-one wanted to admit to them. That’s not uncommon.

“By the end we were all absolutely exhausted but I had a hit list of what needed to be done,” said Ray.

The principle objective highlighted was a need to regain Watermation’s original market. One of the first tasks was to put in place a sales team and a Production Manager, both of which were new to the company.

“We had been a reactive rather than a proactive company. Sales were generated by phone calls which came in. That was it in terms of getting business. I saw it as extremely positive that the company achieved the level of business which it did without a sales force or a production manager,” said Ray.

Next we needed to look at the sourcing of components for the Watermation product range. “I thought it would be better if we bought our parts from a number of suppliers and not just one,”

Since those initial changes were put in place the company has benefited immensely.

“We have made tremendous progress. We have grown by around 35% on a year on year basis and our staffing level has risen from 45 to 65,” explained Ray.

Included in that number are four installation teams who, together with two long established and highly regarded sub-contractors, ensure that the company’s commitment to quality is consistent.

“We’ve gone out to recruit people who have a greenkeeping background and who know what they are doing on a golf course. We spent a lot of time last year finding these people and training them,” Ray explained.

“Most of the work we do is upgrades although we also do completely new systems. We sell anything from something worth a couple of pounds to others worth as much as half a million.”

Another area which is receiving the Ray Lewis attention is the service division.

“We have half a dozen qualified engineers who are on the road continually and we are going to spend more time on our maintenance activity. That will be one of our key strategic moves for the next 12 months.”

While ensuring that the home market is not neglected Watermation is researching possible markets in Europe.

“We’ve got to find a formula which enables us to do business in Europe and to do that we must do a thorough research into the opportunities. We want to do that before we commit our investment,” explained Ray, as we sat in the Aldershot Headquarters of the company.

Richard Pocock, as European Contract Sales Manager and Training Manager, is the man charged with researching the business opportunities outside the UK.

“In America we are not seen in the same profile as some of the other companies but in Europe we operate on a level playing field,” he explained.

“We provide what we feel is needed out in the market place. We listen to what our customers want and design their systems accordingly,” explained Richard, an Australian whose irrigation experience has taken him all over the world.

Watermation produced an extensive "Mission Statement" at the beginning of the new regime. An internal document, it outlines the aims of the company and the way it intends achieving them. Training looms large throughout.

The company has embarked on a programme whereby every individual undergoes
some form of training whether it be internal based product training, working under the NVQ system for customer service on which around a dozen people are working at the moment or advanced sales management training.

"We identified that there was a bit of a gap in the greenkeeping industry in its knowledge of irrigation," explained Ray.

"Richard is engaged in a training needs analysis, part of which is talking to BIGGA, part of it is talking to colleges and part of it is talking to greenkeepers so that we can get an overall idea of what help we, as a supplier, can give in that respect," said Ray.

"We stood back and took the decision that as a large player in the industry we ought to be part of BIGGA's Golden Key sponsorship programme," explained Ray.

Watermation claims a unique place in the irrigation industry as the only company which manufactures its own components, designs and installs the system and maintains the whole system. Last year, amid all the other progress, it was decided to move away from being a company which purely sold impact drive sprinklers to become a company which would offer the customer a choice.

"I don't see too many changes in the fundamental mechanical product in the future but where I do see a change is on the electronic side. I am sure there are a lot of things where we can learn from other industries and apply them to this area," said Ray.

Watermation may suffer in comparison with the larger companies when it comes to investment potential but they have hit on an innovative way around that shortcoming.

"We, as a company, are too small to invest a great deal in research and development so with that in mind we have linked up under the Government's Teaching Companies Scheme with the University of Reading. The University provides us with access to all of the facilities and a graduate who can work on research for us.

"It's another example of us thinking 'outside the box' and coming up with a way in which we, as a small company, can compete and develop."

One of the string of new employees to Watermation is Phil Langdon, the Contract Sales Manager.

"A major benefit we offer to the customer a total service concept. If they ring us we can handle all their needs. I also believe being a British company gives us an advantage.

"We can react quickly and also tailor product to suit the customers' needs throughout the UK," explained Phil.

The Contract Sales Department splits the UK into three with each area having its own salesman and design engineer.

"That way the customer gets to know his engineer and build a long term relationship with him."

The man who heads up the new sales team is Joe Turner, the Distribution Sales Manager.

"I have a team of four professional salesmen who have been chosen for their industry expertise. They are the Watermation ambassadors out on the road and responsible for promoting all aspects of Watermation' services.

"The irrigation industry has had a very reactive approach in the past and the only time the customer has seen someone is when the system developed a fault.

"We have developed a more pro-active approach and call on golf clubs as part of our routine. After all the irrigation system is probably the largest single investment the club has to make outside of the clubhouse and the course itself so it makes sense for us to show an interest in them," explained Joe, who added that his team are all linked to the head office by laptop computer and e-mail.

"Every call that we make to a golf club is logged onto our database and with communication being such a vital part of any successful business, everyone in the company has access to the information within hours of a call being made," said Joe.

The pace at which Watermation is putting its new strategies into practice, allied to an attention to detail and refusal to accept second best, is a credit to everyone at the company and should ensure a rosy future for one of the best known names in the industry.

Production work at Watermation HQ
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Over 370 exhibitors have booked their places for SALTEX '97, the largest outdoor trade exhibition for the sports, amenities and landscaping industries, taking place from September 2-4, at the Royal Windsor Racecourse.

With sound ecological practices an increasing priority, SALTEX this year will include a water aeration feature demonstrating new technologies for chemical-free water treatment. Visitors can also learn about industry developments and ways of improving their facilities in the programme of free educational seminars presented by some of the key influences and suppliers in the industry. Organisations whose representatives visitors can look forward to hearing include The Institute of Wastes Management, SISIS and Jacobsen E-Z-Go Textron.

The SALTEX demonstration area will again give professionals responsible for outdoor spaces the opportunity to check out how products they are interested in actually perform in the field.

To help visitors develop ideas and increase their performance in the face of increasing pressures, SALTEX '97 will feature an expanded free seminar programme sponsored by Jacobsen E-Z-GO Textron. Furthermore, the Training and Development Pavilion will be sponsored by The Toro Company.
“We want to give visitors to SALTEX the most valuable experience possible. By working with the industry, we are continuously improving what SALTEX has to offer,” commented Jon Gibson, SALTEX Show Director.

The SALTEX Seminar Programme will include presentations from some of the industry’s leading trade organisations and suppliers on new developments in the sports, amenities and landscaping markets. The programme is designed to give visitors an insight into industry issues and trends and highlight how to take advantage of new developments to improve performance.

HOW TO GET TO SALTEX

SALTEX is held at Windsor Racecourse. About 20 miles west of Central London, Windsor is easy to reach by rail, road and air. Heathrow is only a fifteen minute drive away; Gatwick and Luton to reach by rail, road and air. SALTEX is held at Windsor Racecourse.

BY ROAD

From the M25. Leave the motorway at Junction 15, where you’ll join the M4, heading west.


BY BUS

Windsor Express bus numbers 700, 701, 702 and 703 connect London with Windsor. The 718 Royal River Route service connects London Victoria with Windsor.

BY RAIL

From London Paddington: Leave the train at Windsor and Eton Central Station. Approximate journey time is 35 minutes.

From London Waterloo: Leave the train at Windsor and Eton Riverside Station. Approximate journey time is 45 minutes.

Information about British Rail services is available on 0345 484950. A bus shuttle runs from the stations to the showground.

‘We want to give visitors the most valuable experience possible’

Organic-based high potash foliar and root feed specially formulated to maximise turf quality and afford protection during over-wintering. Also provides early season treatment, encouraging spring growth, stimulating soil bacteria and enhancing colour. 3 x 20 litre containers treat one hectare.

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Who to see at the show

List of selected exhibitors

Levington Horticulture – Stand F48-50 – will be launching five new liquid turf fertilisers this year, giving turf managers the option of precisely meeting the nutritional needs of their turf at any given time of year. Not only do the new Greenmaster Liquids provide users with a comprehensive choice in themselves, but they can also be tank mixed to generate even more nutrient ratio options.

With the new Greenmaster Liquid range, greenkeepers and groundsman will have the opportunity to tailor the right treatment – be it a balanced feed, a high K product, additional trace elements or a tonic feed – quickly and easily.

Greenmaster Autumn contains ferrous sulphate to control moss during over-wintering. Also provides early season treatment, enhancing colour. 3 x 20 litre containers treat one hectare.

Levington Turfclear is the second key product for this time of year, providing an excellent balance of macro nutrients and a rich range of trace elements, making it an effective treatment for suspected mineral deficiencies, a top quality dressing, and a fast acting organic fertiliser! Secondly ‘Olympian Thatch Eater’ a dressing containing a living microbial component, vital to the breakdown of organic matter, making nutrients available for the devel-
Miracle will take care of your used containers

‘Intrepid’ will take care of your turf weeds

‘Intrepid’ is a new cost-effective selective weedkiller that can be applied throughout the growing season. It's powerful three-way mixture will control many broad-leaved weeds in turf. And unlike some turf herbicides, repeat applications are possible should new weeds germinate or deep-rooted weeds regrow during the season.

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Jacobsen E-Z-GO Textron – Stand W19 – are pleased to announce that they will once again be at the SALTEX Exhibition at Windsor this year. Their stand will show a wide range of products for the Amenity, Groundcare and Horticultural market.

The products on show include a range of grass-cutting machinery ranging from the Pedestrian Green Mower Range through to the large ride-on rotary the HRS111.

New this year will be the New Electric Greens King which makes its debut at the show. Also on show will be a range of E-Z-GO products including Golf Cars, People Movers and Utility Trucks.

Alongside the existing range of grass-cutting machinery will be a range of Top Dressing Machines from Turfco and also a range of Smithco Bunker Rakes.

The stand this year will exhibit a wide range of tractors from Iseki, this range includes smaller mid-mount rotary riders, out front rotary mowers and tractors ranging from 15-63hp. Also on show from Iseki will be a brand new range of tractors, not exhibited previously in the UK.

Mower Accessories Ltd – Stand H10-11 – are now one of Europe’s leading manufacturers of bottom blades, rotary blades and cutting cylinders. They manufacture the most comprehensive range of these items in Britain, at their factory in Sheffield.

They now supply world wide with the inclusion of the USA for the first time in 1997 Mower Accessories Ltd will be exhibiting a cross range of products at SALTEX and look forward to meeting greenkeepers, buyers and grass cutting equipment maintenance engineers on their stand.

Rhône-Poulenc Amenity – Stand P2 – old faithful Super Mosstox is now and improved for SALTEX with the addition of a 17 L/ha recommendation for hard surfaces and a dichlorophen content of 360 g/L. Super Mosstox will also control the important problem disease, red thread.

Don’t get caught out again this year with leather jacket problems. Come along to the stand to find out how new Crossfire 480 could be your ideal solution.

Sovereign Turf Ltd – Stand F28/29 – the first grower to offer TGA Approved Quality Turf, will be returning to SALTEX. The complete range of Sovereign Turf products will be displayed along with an exciting new natural grass product Sovereign SIG (Solutions In Grass) which is being launched at SALTEX. Sovereign have always produced turf for Landscaping, Golf, Winter Sports and amenity applications. However SIG satisfies the unique requirements of a market consisting of Exhibition Stand Designers, Film and Photographic Set producers. With its unique features, SIG is also the obvious choice for areas normally difficult to access with conventional turf eg. roof gardens or steep sloping banks. For more details contact Steve Williams on 01603 746229.

TIL Irrigation Ltd – Stand W52 – is the UK Distributor for Toro Irrigation equipment. As such the company will be exhibiting the range of Toro PC based control systems, including the CDS, evolved from Toro’s SC3000. Available with radio remote control the CDS system shares the SC3000 decoder which is renowned for its reliability.

Visitors to the TIL stand will also be able to discuss at first hand the new Toro Support Network (NSN) initiative. NSN has been specially developed to provide customers, using Toro computer and PC based control systems, with levels of technical support and service unsurpassed within the amenity irrigation industry.

As one would expect from an industry leader, Toro’s control systems are offered in conjunction with the most comprehensive range of sprinklers available, sprinklers which have lead the way in gear drive rotation and technology for many years.

The Hydroscape Group LTD – Stand U25 – The Hydroscape Group Ltd is the UK Distributor for Otterbine Water Aeration equipment and lake management products. Visitors to the Otterbine stand will be able to experience a unique opportunity of seeing a number of water aeration units operating in a real-life river setting. Otterbine water aerators are designed to improve and maintain water quality in lakes, ponds and in-ground reservoirs. A wide range of aeration options have been developed to suit every water management situation. The range includes both surface and sub-surface aerators, many of the surface aerators offer the advantage of effective water aeration, together with attractive, highly visual fountain effects.

These units and others will also be displayed on the Otterbine stand together with the bio-augmentation product Otterclear, a unique ‘blend’ of bacteria, designed to improve water clarity and a reduction in sludge and water odours, and Ottershield a lake colourant contained within a water soluble packet.

Supaturf – Stand E16 – will be showing a range of new innovative products and services that will further enhance its position as a leading supplier to the sports, amenity and landscaping industry.

Creative sports and play surfaces will be displayed, with examples of work completed throughout the country, bringing new levels of creativity and striking visual effect at a realistic price. All designs are unique and
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**Toro Commercial Products**

- **Stand W50 - Leading the line-up of new products from Toro Commercial Products is an innovative rotary mowing deck called Contour 82. There is also a petrol-driven version of the company's highly popular Greensmaster 3200 greens mower, as well as an addition to Toro's Sand Pro range of bunker maintenance vehicles, the Sand Pro 3020. The contour 82 Deck is for the well-known Toro Groundsmaster 3000 power unit and delivers a superior quality of cut while solving specific problems, such as scalping, that face operators mowing contoured turf with existing rotary mowers. The petrol-powered Greensmaster 3200 is the latest introduction to Toro's top-selling GR 3000 Series greens mowers. Its features an exceptionally quiet 16hp, water-cooled Briggs & Stratton Vanguard engine. In all other respects the ride-on triple mower as the same high standard specification and performance capabilities of its 3200-D diesel counterpart. Toro is improving its popular Sand Pro range of bunker vehicles by introducing the new three-wheel-drive Sand Pro 3020. The latest model incorporates major improvements over its predecessor in the stable, drawn from the top-of-the-range Sand Pro 5000. For further customer information or to arrange for a machine demonstration telephone 01480 476971 or fax 01480 216167.**

**Electric Irrigation** - In October 1995 Simon Hills decided to become a self employed irrigation engineer. "Many greenkeepers remember me as just an electrician sorting the various problems with control equipment, however since starting my company Electric Irrigation I have been involved in various complete installations around the country and overseas. My advert in Greenkeeper International August issue show that I can now offer a better service with full CAD design and Case 460 mole plough for the installations," explained Simon.

**Ultra Plant (Incorporating) Surrey Grass Care** - **Stand** - **Demo area A 8,9,22,23** - the Ultra Plant range of Top dressers will again be shown working at Windsor. This year the now spinner discharge system will be demonstrated. The well proven UB40 pedestrian spreader, UB50 Ultra Spreader either in towed or mounted version and UB60 bulk spreader will be on show. The range is completed with the HI40 high lift dump trailer popular for its work saving features. Do come and visit us - you're sure of a warm welcome.

**Hayter** - **Stand W15 - Featured on the Hayter Stand will be the new Hayter Broadsword Rotary Mower. This stylish compact mower features a 48hp high output engine and is built to the same rigorous standards as all Hayter machines. The recently launched LT322 2-wheel drive and LT324 4-wheel drive triple machines will also be on display. These three machines all incorporate a hinged access system to the hydraulics and engine, making servicing quick and easy. Among the featured machines is the FMS14 Fairway Mower, complete with its optional collection units. Hayter always offer high quality products and 1997 is no exception. Visit the stand for expert advice and information.**

**OCMIS Irrigation (UK) Limited** - **Stand Q6 - are irrigation experts with a referral driven reputation in system design, manufacture, supply, installation and service for all sports turf, land-
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Hewthrop Minerals and Chemicals (HMC) - Stand E84 - is showing its extensive ProSport range of root zones, top dressings and sports ground sands. There are four root zones in the ProSport range including product which conforms to the stringent USGA specification and Ecowax which uses composted green waste as its organic content. There is also a companion top dressing called Ecodress. ProSport are specially selected for a number of applications including golf course bunkers, equestrian riding surfaces, greyhound tracks and play areas. Technical experts will be on the stand to discuss all aspects of sports surface preparation.

Rain Bird's Europe - Stand CR9 - Rain Bird's Nimbus Decoder central control system uses powerful, colour graphics and simplified on-screen instructions to provide ET-based schedules and advanced flow management. With Nimbus Quick StartTM, users easily start-up the software and are able to build their first customised program step by step. Maxi NimbusTM, uses Microsoft WindowsTM '95. With advanced built-in features to maximise your irrigation efficiency, Nimbus will put you in control of your irrigation system in record time. From tees to greens, this feature-rich, user-friendly system will optimise water use, reduce input costs and prolong the life of your hardware.

Eagle Promotions Ltd - Stand B56 - will be presenting its extensive range of Quality Golf Course Signage based on its Photocast Zinc Product. Come and discuss with us the many different ways of portraying your golf hole information using methods that will continue to enhance your golf course through the passage of time. The zinc plate is weatherproof and has a traditional feel of quality which creates a truly exceptional signage system whether it be for tee signs or general signs. The Etching is a photographic process therefore we can achieve very high resolution when using your club logos or hole diagrams. For more information call Philip McInley 01883 344244.

Amaryn Dane Ground Care - Stand B11 - will be launching the ProFi Hopper ride-on flail collector, the company's entry into this sector of the market. A multi-operation machine, the ProFi Hopper's 1.2 metre-wide cutting head incorporates Amaryn Dane's patented flail attachment system, where the blades are simply hooked over a series of shackles rings on the rotor. Operator comfort and convenience is enhanced by a walk-through platform, a seat fully adjustable for leg length, rake and ride and ergonomic control layout. A 20 litre capacity diesel tank minimises refuelling time and the engine and hydraulics are easily accessible for service. Routine maintenance is simplified by the fitting of a cartridge-type air cleaner and hinged radiator screen. A sliding cover gives quick access to the flail head components.

Amenity Technology - Stand D71 - The SALTEX show marks the continued expansion of the Amenity Technology range with the addition of an extensive iron range, comprising both soluble and liquid iron with or without sulphur and also introducing Drencher Fe, formulated liquid iron and wetting agent. Also being launched at the show is INDICATOR spray pattern indicator. Available in water soluble packets or in liquid form, INDICATOR leaves the turf with a natural green colour.

To view the future of amenity products today, visit Amenity Technology on stand D71.

Liquid Sod - Stand A50 - is exhibiting its new, revolutionary, recently launched inflatable Growing Dome; and it is anticipated that other companies will be demonstrating their machinery beneath the Dome's protection particularly if the weather is inclement. Come and see for yourself just how spacious the inflatable Dome is inside, providing plenty of room for work to be undertaken on turfgrass all year round; also see for yourself just how versatile the Dome is for all kinds of uses - not just for turfgrass growing/renovation.

For further information, telephone Liquid Sod on +44 (0)1963 251129 for fax +44(0)1963251168.

Vitax - Stand F54-56 - is launching a number of new exciting products at SALTEX 97, these will feature four new additional turf fertilisers in the key Range, and three new water soluble fertilisers in a new Vitaturf Range. One of the most successful recent additions to the Vitax Sport Amenity Range is Seaturf Soluble, a natural seaweed extract that is 100% soluble. Come along to the Vitax stand and see how this product can now be tank mixed with 50/50 Soluble Iron, using the new Vitax Tank Mixing Agent. The new 1998 Sport product brochure will also be available, plus other new informative literature.

Turf Care Machinery Ltd - Stand D1 was established in early 1997. The main services we provide are machinery hire, from Verti-drains to hydrotreaters, from
To be perfectly honest, there are only a few competitors in the golf car business. At Club Car, we simply strive to outperform ourselves each year. That's much harder than it sounds. But it's exactly why we're the leader throughout the world. And it's why we're the official golf car of The 1997 Ryder Cup by Johnnie Walker at Valderrama.

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Who to see at the show

Teestar hydraulic triple mower, the Greenstar features exceptional performance and quiet operation.

Other new exhibits include trailed and rear mounted versions of the Grainskeeper Greens Brush (for efficient integration of Topdressing), Groundforce and Taskforce low cost utility vehicles and the latest 4 Wheel Drive Turfblazer 1280T turbocharged 126" cut rotary mower.

Huxley's sell and hire their range of British and imported turf care machinery direct for their branches in Alresford (Hampshire) and Broxburn (Scotland), and through selected dealers in other areas. For further information contact Paul Huxley 01962 733222.

Marlwood Ltd - Stand Demo B26 - the X-Series Articulators are our third generation of floating rotary mower. They are more productive, automatically fold for transport, are more accurate, low maintenance, have stronger frames, and are 300 pounds lighter than previous models. Larger tyres decrease ground compaction, perform better in rougher terrain, and allow faster cutting speeds. The drive system also transfers more power to the blades for improved performance in long and wet grass. Contact: Marlwood Limited, Court Lodge Farm, Forge Lane, East Farleigh, Maidstone, Kent, ME15 OHQ. Tel: 01622 728718; Fax 01622 728720.

Course Care - Stand T45 - Saltex will see the launch of Course Care's "Course Cap" and the latest in oil interceptors. With approval to European Standard prEN812 the Course Cap provides wearers with stylish and comfortable protection from incidental head impact - including flying balls - and is a much demanded addition to the Course Wear wardrobe.

The oil interceptors on display will be complemented by the presence of Course Care's range of environmental services featuring waste oil collection, biodegradable grease, and an oil absorbent produced from coconut fibres for those who have an environmental policy which precludes the use of peat.

For a Course Wear brochure and details on all the Course Care range call 01535 611103.

Avoncrop Amenity Products - Stand H71-H72 - offer a comprehensive range of Chemicals, Fertiliser, Grass Seed Mixtures, Top Dressing and Line Marking Materials.

Strategically positioned depots at Sandford, near Bristol, and Bracknell, Berkshire, enable Avoncrop to offer an efficient delivery service throughout Southern England and South Wales, backed up by an experienced Field Sales Team.

At the 1997 Saltex Show, we are launching an advanced range of Microbial Soil Inoculants, Plant Nutrient and Soil Management products manufactured by Green Releaf of Jacksonville, Florida, U.S.A.

Systematrix Ltd - Stand CA26 - Systematrix will be exhibiting the ITM system of modular turf.

Modular turf trays have been used at the Baltusrol for golf practice tees and in early 1997, 6400 were exported to the Giants stadium in New Jersey USA for the Metrostars soccer team.

The modules have an excess water flow rate of 170mm per hour and are ventilated with the Sub Air system for heating or cooling the turf. ITM will be...
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SALTEX is the biggest, most comprehensive, most relevant show of the year (not to mention a great day out!). The show is free, the parking is free and the Show Guide is free - with thanks for keeping Britain green.

Call the Free Ticket Hotline for your tickets and information pack.
Who to see at the show

- exhibited by the UK dealer Inturf Ltd on stand no CA26.

**Risboro Turf** – Stand A18 – Last year's winner of Turf Management's New Product Award – the unique Little John Hydraulic-driven scarifier now has an extensive range of attachments. RTS's Sorrel rollers open surfaces so water, air and nutrients reach the root zones. A new tractor-mounted slitter joins the Big Willy pedestrian aerator and the 1.5m linkage-mounted Hercules.

For workshops there are grinders and back-lappers from Neary and the Park Brushcutter Workstations.

The Stop & Go Tyre Plugger is a ‘must’ for every tool box. Other equipment worth seeing includes ball-pickers, turfcare rakes, drag mats and brushes, plus Agria two-wheel tractors and attachments.

There is a difference between simply grinding and sharpening mowers as visitors to **Eric Hunter Grinders Ltd** – Stand R39 – will see. Hunter's leads the field in the method of accurate ‘Relief Angle’ grinding. ‘Relief’ grinding is simply grinding each blade of the cylinder with a clearance angle. When performed correctly, it results in mowers that are easier to set, produce a cleaner cut and creates hardly any friction between cylinder and bedknife thus causing less wear. Blades are known to last up to four times longer after being ‘relief’ ground.

Among the grinders being demonstrated, are its popular Jupiter and Juno machines. Hunter's well engineered products have acquired an excellent reputation over the last 25 years for a 'quality' grind and are used at numerous leading Golf and Sports Clubs, Local Authorities,

Turf Grower and mower repair workshops throughout the world.

**Symbio** – Stand F37 – launches Symbio Resister for the Biological Control of Fungal Disease. Symbio is pleased to introduce a new concept in disease control – Symbio Resister which combines the power of microbes and fungi to degrade thatch and assimilate nutrients into the plant with microbes specially selected for their ability to prevent the growth of pathogenic fungi – including fusarium.

Symbio Resister helps cure the cause of fungal attack, not just the symptoms, and works by removing the food source of the fungal pathogens while building up the natural resistance of the soil and plants to fungal attack.

Symbio Resister can be applied in early spring or late summer or autumn. It may take some time to build up the microbial population in your greens, but one application of Symbio Resister may work for up to six months whilst accelerating/enhancing the effect of Symbio's existing products Symbio Green Circle, Symbio Thatch Eater and Symbio Black Layer Treatment.

**Rolawn (Turf Growers) Limited** – Stand CA11 – have a network of 16 turf depots staffed by Rolawn's own employees. The depots sell turf on a no minimum order basis. Rolawn offer free mechanical off loading, free literature and free samples. Inspect before you buy, free samples can be dispatched anywhere in the UK within 24 hours.

In 1995 Rolawn commenced an independent turf testing programme with the STRI. Rolawn are the only turf company that submits its turf to regular independent testing. Advantage turf, the best greens’
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- Minster turf, predominantly fescue in appearance, is grown for the discerning groundsman/greenkeeper who requires a fine bladed finish. Its fine appearance and texture make it a top choice for golf and bowling greens.
- This Autumn/Winter Rolawn have issued a price beating challenge on greens turf. Both grades of greens turf are included in the deal.

Kawasaki - Stand W71 - launched just after SALTEX last year the Kawasaki Mule 550 will be shown for the first time this year. A development of the extremely popular Mule 500 the major change is the provision of a bench front seat enabling two people transport. Minor modifications to the transmission and engine have improved economy and smoothness of operation to this very popular low ground pressure workhorse. The larger Mule 2500 series will also be shown in both two and four wheel drive versions together with a range of accessories.

Of great interest to professional ground care personnel will be the launch of a completely new range of ground care equipment by Kawasaki on Stand W17. All are welcome!

Assist Greenkeeper Profile

Name: Martin Kohler
Age: 19
Club: Swanston GC
Position: 2nd Assistant

1. How long have you been a greenkeeper?
   Three years.

2. What education are you currently undertaking?
   SVQ Level 3 in Greenkeeping and Horticulture at Oatridge College.

3. Which one task do you most enjoy doing?
   Cutting greens by hand.

4. Which one task do you most dislike doing?
   Knapsack spraying.

5. What job other than greenkeeping might you have ended up doing?
   None. I’ve always wanted to be in greenkeeping.

6. Who has been the biggest influence on your career?
   I think Oatridge College has been the biggest influence on my career.

7. What would you do to improve the life of a greenkeeper?
   I would make all committee members take lessons in greenkeeping.

8. What are your hobbies?
   Golf, music and cars.

9. What do you get out of BIGGA?
   BIGGA gives me a good chance to socialise with other greenkeepers from all over the country at outings, meetings etc. I also get to see what’s going on at other clubs every month in the magazine.

10. What do you hope to be doing in 10 years time?
    I hope to be Course Manager at some well known club in Spain.
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It comes complete with a powerful Kubota V1505-BB-EC engine, a 4-wheel drive option for demanding conditions and a smooth transmission control for a comfortable ride. Convenience features include a hinged access system for easy maintenance and a modern, streamlined design with unrestricted operator vision.

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See the Hayter LT324 at your local Hayter dealership or contact:
Dave Leatherland talks with Scott MacCallum about the major change his club is currently undertaking.

Let me outline the following scenario to you. For 23 years you have been Head Greenkeeper at what is widely regarded to be the best course in the county. You know the course like the back of your hand. Whatever is thrown at you in the way of disease, weather conditions or general freak of nature you know what to do. You can handle it. Everything runs with the precision of a Swiss watch.

Then the decision is taken to dig up the clay based greens and replace them with USGA spec sand based greens.

How would you feel? ...A touch concerned, a tad disconcerted, a little bit worried?

Exactly that happened to Dave Leatherland, Head Greenkeeper at Kedleston Park, near Derby. "I was absolutely terrified," confessed Dave, as he looked back two years to when the decision was taken to re-construct every green on the course.

"The existing clay based greens had been designed in 1946 to retain water and were excellent in the summer months but flooded in the winter. The members had spent a lot of money on the clubhouse six years ago and when the VAT money became available this year the members told the club that it could have the money as long as it was spent on the course. Kedleston Park is beautiful parkland course set in the grounds now part of the National Trust but previously the Estate of Lord Curson and the late Lord Scarsdale. Widely regarded as the best course in Derbyshire it has hosted the Midland Professional Championship, the English Amateur and the English Boys in 1975.

"Before the work began I said that I wanted to see some of Craig's work and I flew to Powers Court in Ireland which was won by a young lad by the name of Faldo. Resident Professional is David J Russell, a former European Tour two time winner and stalwart for many years and it was DJ who brought European Golf Design to the club to speak to the members and EGD recommended Craig Cook as designer and constructor of the new greens. "Before the work began I said that I wanted to see some of Craig's work and I flew to Powers Court in Ireland which he designed and constructed. "As soon as I saw the end product I thought 'yea, that's for us'. I also spoke to the young American Head Greenkeeper and asked him what he thought of the design and construction," explained Dave.

The decision was taken not just to rebuild the greens but to redesign them and in some cases to relocate them, adding around 150 yards to the length of the course, as well as amending the existing greenside bunkering.

The work has been phased with seven greens already finished with five more next March with the remaining six before the Millennium.

"We worked closely with Craig on where he was going to take the drainage and on matters regarding the irrigation. His foreman was on site permanently and he would come for three days at a time to make sure everything was going according to plan," explained Dave.

Of those already done – the 6th, 13th and 15th – were seeded in April of last year while the others – the 7th, 8th, 10th and 14th – were seeded in mid October.
I feel we missed out on three of four weeks of seeding with the first four and didn't get a good coverage of seed before the winter set in. That encouraged a little poa to get in but we hand picked it all and hopefully we've got on top of it. We were playing on the greens on May 31."

The root zone mix was Dave's decision and he decided on an 85% sand 15% peat mix.

"The standard is probably 95-5 but I wanted to incorporate a little more peat and the contractor had no worries about that."

It was decided to sow Providence Creeping Bent which didn't take long to establish itself.

"With the last three greens we were cutting them five weeks later. I'm still bringing down the cutting heights. It's a patient game we're playing. I was probably bringing them down a millimetre every ten days during the growing in period but now we are cutting them every day seven days a week." explained Dave.

Until the remaining 11 greens are laid and established Dave and his team are left with a situation where they are managing some clay based greens and two sets of USGA spec sand based greens of slightly differing ages.

"It is a problem. I would have liked to have seen them all done in the one scoop but obviously the members wouldn't have taken too kindly to that. However, they were extremely patient when having to play off temporary greens during the rebuilding work.

"The main difficulty is on the playability side as the old greens are still quicker than the new."

It has also seen major changes in Kedleston's feeding regime.

"The old greens are fed perhaps three times a year while with the new greens it is every two weeks with a Rigby Taylor 12-0-6. It's a little and often especially with the weather we've been having and the leaching which has been caused." If any members had doubts about the validity of the decision to make such a fundamental change to the golf course the weather during the club's Jubilee Week put their minds at rest.

"In the thunder storms the new greens were the only ones which didn't flood and remained playable. The members were over the moon and were shouting that the others should be done as soon as possible," said Dave, who revealed that the cost was working out at around £19,000 per green.

Dave's initial reservations are now well behind him and he is relishing the challenge that lies ahead.

"I'm excited by the prospect of 18 new greens. It's almost like having a completely new golf course."

"I would say to anyone who finds himself in the same position that it is not as scary as it seems. You hear reports about how different sand greens are and what complications they cause but, and I'm touching wood here, I haven't had any real problems yet," said Dave, who did say there was a minor problem.

"In the thunder storms the new greens were the only ones which didn't flood and remained playable. The members were over the moon and were shouting that the others should be done as soon as possible," said Dave, who revealed that the cost was working out at around £19,000 per green.

Dave is quick to pay tribute to BIGGA and, in particular BTME, for giving him access to the information needed to cope with such a marked change in his working practices.

"I love Harrogate. I think it's the bees knees. I go every year and talk to other greenkeepers not just from this country but abroad as well, and get ideas from them. It was through talking to guys up there that I got the confidence to do the job."

Dave is also quick to pay tribute to the rest of the club staff, and in particular, DJ and the club secretary Ken Wilson.

"We have a meeting every week and discuss what is happening out on the course and what the members have to say. At the end of the day they all think that it is DJ who is behind all the ideas and he has played all over the world, seen many golf courses and been able to bring back ideas. He doesn't get involved in the running of the golf course but I've learned things from him and he's learned from me."

"He is a front man who can explain to members in the bar why certain things are done," said Dave, who also plays with members every Saturday and learns what they think has been a good idea as well as what hasn't gone down so well.

What has been universally acclaimed, however, are the new greens and Kedleston is a fine example of how a potentially disrupting process can be undertaken by planning, professional execution and sound greenkeeping.

**Equipment Inventory**

<table>
<thead>
<tr>
<th>Equipment Inventory</th>
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<tbody>
<tr>
<td>Two GM 3000a</td>
<td>One GM 3</td>
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<tr>
<td>Four Super Certes</td>
<td>One 5000D</td>
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<tr>
<td>One set of Hydraulic Five</td>
<td>One Set of 214 Scarifiers</td>
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<tr>
<td>One 5300D</td>
<td>One Sisis Outfield Spiker</td>
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<tr>
<td>One Set of Five Ransomes</td>
<td>One Sisis Greens Sitter</td>
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<tr>
<td>Magna</td>
<td>Two Sets of Five Ransomes</td>
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<tr>
<td>One Sisis Outfield Spiker</td>
<td>One small Verti-drain</td>
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<tr>
<td>One Sisis Greens Sitter</td>
<td>Three Victor 460</td>
</tr>
<tr>
<td>One small Verti-drain</td>
<td>One Kubota 2150</td>
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<tr>
<td>One Ford 1710</td>
<td>One Ford 3600</td>
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<tr>
<td>One Ford 3600</td>
<td>One Massey Ferguson 20</td>
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<tr>
<td>One Prospread</td>
<td>One Turf Iron</td>
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<tr>
<td>One Hardi Sprayer</td>
<td>Equipment Inventory</td>
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John Kerr, Head Greenkeeper at Enfield Golf Club, was the lucky winner of last month’s competition – a crisp £50 is on its way, John. It could be YOUR TURN this month!

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Continuing the debate into the benefits of alternative spikes with a look at some of the research which has already been taken place. By Ian McClements, Regional Turfgrass Agronomist STRI.

Some traditionalists may argue that golf would not be the same without spiked shoes, that may be partly true but could significant improvements in the playing quality of the putting surfaces be achieved almost overnight if clubs made the switch and enforced a ban on metal spikes?

Golf was played long before spiked shoes became fashionable and it was not until the 1920s that golf shoes with spikes became standard foot gear. As with so many fashions in golf this switch was probably fuelled by a series of victories from prominent golfers winning championships in spiked shoes. A willing public were quick to follow their heroes in the belief that they too required the extra traction offered by these devices. The power behind a 250 yard drive is derived from the legs firmly attached to the surface. Not everyone drives the ball 250 yards or requires that kind of grip and not every round of golf is played under wet slipper conditions. More to the point what type of damage does the spiked shoe inflict upon the turf?

At least six separate studies in to the effects of golf shoe damage on turf have been conducted in the USA, the earliest dating back to 1948. Surprisingly this early study was undertaken because of concerns arising from a newly developed "lug sole". This is described a being similar to a moulded, rubber, artificial turf shoe. The study compared the effects of this with a standard steel spike and found that the lug soles caused considerably less damage. Further various studies have been undertaken in 1968, 1965, 1982, 1994 and most recently 1995. Every study has consistently shown that metal spiked golf shoes are the most damaging footwear option yet so many players have still to be convinced about the positive benefits of spikeless or other alternatives.

The USGA Green section study in 1982 demonstrated that the metal spike caused the longest lasting damage in both wet or dry conditions requiring a period of up to four weeks to fully recover. Spikes do not aerate the surface, if anything they cause compaction as the weight of the golfer is borne directly on the shoulder of a limited number (11-12) of spikes. The pressure exerted by a 73 kg player would amount to approximately 7,335 kg/m² if both feet were firmly planted upon the ground!

The 1994 study at Ohio State University measured ball roll on Pen-stononiferous growth habit can also spike up quite badly and, of course, poa invasion on new greens is a real concern to both Course Managers and golfers alike, spiking the greens intensively on a daily basis may simply provide a seed bed for annual meadow grass establishment but equally by eliminating spikes the bent grasses will be healthier and better able to resist annual meadow grass encroachment. Clearly this requires more research before unsubstantiated claims are made.

Everyone is familiar with worn areas that result from concentrated winter traffic near a tee or close to a green side bunker. Spikeless alternatives may help to reduce this phenomenon, after all wear damage is greatest during the winter months when the ground is wettest and the turf's ability to recover is weakest. At the same time individual benefits are likely to be site specific.

There are wider implications to the alternative spike and hidden financial costs. Capital diverted to repairing damage caused to wooden bridges, paths, artificial teeing surfaces, seats, moving equipment and locker room flooring could be more fruitfully used in improving course presentation and playing quality.

Traditional metal spikes clearly affect playing quality and damage all surfaces they come into contact with but are there any disadvantages? Many players are convinced that the spikeless alternatives are dangerous and provide less traction. In some respects they do provide less grip but public courses tend to have more heavily damaged greens caused by inexperienced golfers dragging their feet across the putting surfaces. It is a question of making the necessary adjustment to the type of footwear used, lifting the feet higher when using metal spikes or by exercising greater care on hilly terrain or wet slopes in soft spikes. Many older golfers have commented that shoes fitted with alternative spikes are more comfortable and at the same time experienced less back stress. There is no shoe that is slip proof and the spike can give a false sense of security. I recently spoke to one golfer who badly sprained his wrist after suffering a fall on wet concrete paving while wearing alternative spikes yet he was convinced that he would have broken his arm had he been using metal spikes, on this occasion he was more aware of the dangers at the time.

There is no doubt that they are more convenient to use, imagine finishing a round of golf, walking in to the 19th hole for a drink and some lunch before driving home without changing your shoes. One major drawback is likely to be reflected in the speed with which the spikeless alternatives wear. The cost to the player may increase but the cost to the course could be significantly lower.

I recently spent two weeks in the USA with the USGA Green Section visiting courses in the mid Atlantic and north eastern regions. Over 20 courses were visited during this period and all had successfully implemented metal spikes. Many of these courses had annual meadow grass dominated greens akin to what is found in the UK and appreciated the improvements in playing quality which accompanied the ban. This is clearly a growing trend in the states reinforced by the USGA who just recently announced that they would up hold any existing club's ban on metal spikes. If it was to be used for a USGA qualifying championship.

The availability of spikeless alternatives is likely to increase but a word of warning. Some of the new shoe designs might be as damaging or more damaging than metal spikes as was demonstrated in the 1982 shoe study. Fortunately many of the shoe manufacturers have learnt from that experience and products available today appear to be generally less damaging than the "traditional" metal spike. Nevertheless, until appropriate research is undertaken under UK conditions, it has to be said that the much of the evidence in favour of the alternative spike is at best circumstantial. Certainly for winter play, the metal spike appears to give a safer footing on the tee and on sloping ground. The debate will doubtless go on.
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