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1998 British and International Golf Greenkeepers Asso

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Your next issue of **Greenkeeper International** will be with you by June 4

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Education As the deadlines for the annual competitions approach Ken Richardson is waiting for the last remaining entries to pop through the letter box

- **Money Matters** All you need to know about TESSAs
- **Health & Safety** The benefit of attending safety courses
- 36-43 **Around the Green**
- 64-65 Sandy McDivot

Sandy makes his bi-monthly appearance and discusses the role of the agronomist

66 **Features Listing** Helping you track down features from old issues

66 As I see it...

BIGGA Chairman, Gordon Child, discusses a range of topics covering his time in the army, the National Tournament, education courses to progress on the new building





(15) Health & Safety

he green, f home

Avid followers of this particular column may recall that last year I gave you just a little insight into the work that was going on in preparation for the move my wife, Elaine, and I were making to live in the York area.

Well, with just a few hiccups, we made it and we moved into our new home at the end of July.

It was while the pair of us were still unpacking that a young man came along and laid our lawn. We thought it was great. It made it look like a home ... on the outside anyway.

We were given our instructions - make sure it gets plenty water - and, as it was in the middle of a drought, rushed out to buy a hose.

While it was bedding in, you wouldn't have found a more caring couple when it came to looking after that small area of grass and it seemed to be establishing itself well. Then it started to go wrong. Mushrooms began to appear and then bare patches.

Through the winter it got worse, until it looked more like a well used football goalmouth at the end of a long season.

But I haven't worked for the Greenkeepers' Association for three years without picking up a few ideas on how to look after grass. I aerated, then scarified and overseeded using

a couple of these boxes which involve you doing an al fresco version of the "shake 'n' vac." I then topdressed using a product a painful trawl of the garden centre had assured me was ideal for the job. This task I completed by carefully brushing in the sand. After that

I waited for my labours to bear fruit. Just this morning I looked out of our bedroom window, down upon the scene of all this industry to see...a well used football goalmouth at the end of a long season. Worse, the sand gave it more of a look of a desert. The lesson it has taught me is that it is not

what happens above ground that matters, it is what going on underneath and if the area hasn't been prepared properly there are always going to be problems. While we were delighted to see a lush, green lawn so soon after our arrival we would have been far better putting a hold on it until we'd broken up the hard pan of soil upon which the turf was laid and generally prepared the ground.

It makes me think about those of you who work on courses which either have old, worn out greens or ones which have not been particularly well constructed. No amount of tender loving care is going to prevent problems and not everyone is going to accept the rational explanation for what

has gone wrong. As for us, unless there is a drastic improvement I reckon it'll be back to square one.



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Dr Stephen Baker takes the mystery out of suspended water table green construction

23 Home on the Grange

Letham Grange is preparing to welcome members to the National Tournament, in association with Scotts/Miracle in August. As Scott MacCallum found out, those who decide to compete are in for a real treat

29 Taking the strain

Gerard van 't Klooster describes what it takes to produce a new grass and what we can expect in future

33 All donations welcome

BIGGA President, Viscount Whitelaw, is retiring from the position but his last task was to invite golf clubs to contribute to the Association's Building Fund. The first club to make a donation was Ham Manor in Sussex

36 **A Machinery Charter**

Charterhouse are the latest Golden Key Supporter and, as Scott MacCallum discovered, the company has always been keen to promote greenkeeper education

46 **Digging deeper**

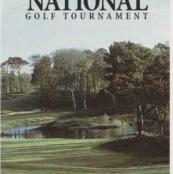
A look at natural occurring soil bacteria

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Hugh Tilley gives some advice to help reduce the chances of some on wanted visits by some uninvited guests

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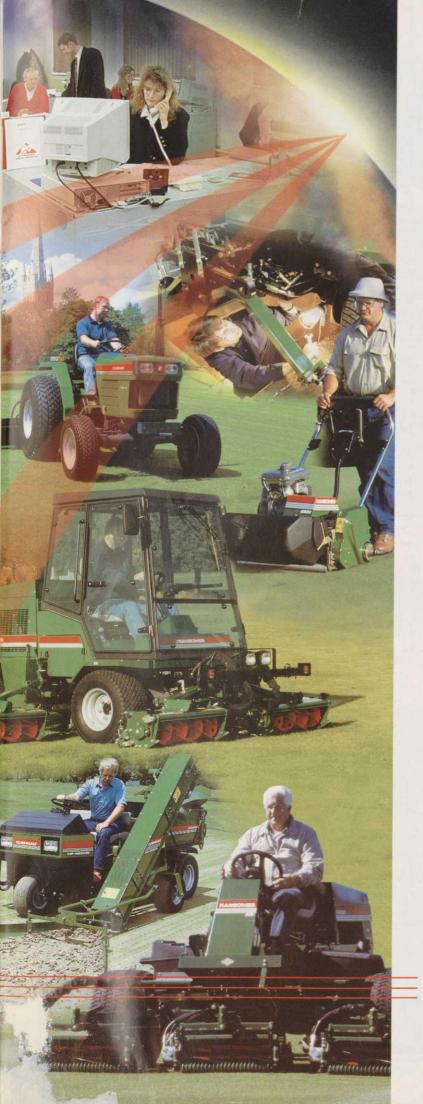
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(23) National treasure: Will you be there?



(17) Would you scythe your green?



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Industry heavyweight

retires

Mark Horner takes over as Commercial and Amenity Sales Manager at Vitax this month, following the retirement of Trevor Holmes after 14 years with the company.

Formerly with Sinclair Horticulture & Leisure, Trevor, who joined the company as National Field Sales Manager in 1984 and rose to Director two years later, following a company buy-out, has seen the successful merge of Vitax with Synchemicals in 1988, and Amenity sales figures triple since he joined the company.

During his time with Vitax, Trevor has introduced many new products including the wetting agent "Ultraflo", the entire range of slow release fertilisers and, most recently, the seaweed products "Seaturf Soluble" and "Seaweed Foliar Feed".

While building his early career in the horticultural and amenity sectors, Trevor had also been building his body. A self confessed seven stone weakling in his 20s, he joined a body building club in Grantham, of which he is now Honorary Secretary, and put on six stones in two years, helping him to take sec-



Trevor Holmes with the weight of the world on his shoulders

ond place in the British Power Lifting Championships in 1963 and become Champion of Champions of Great Britain in the same year.

Three British records still stand to Trevor for the "Pull-over and press on back", a lift which is his speciality - they are for the middle-weight, light heavyweight and mid-heavyweight classes, the middle-weight record since 1965.

The future holds a rigorous training programme, as Trevor will continue to lift, although not compete, and is looking forward to playing more golf. Mark Horner, who has been with Vitax for three years, and working alongside Trevor as Commercial and Amenity Sales Manager Designate since September, was born into horticulture as his father grew over 30 acres of field vegetables at Scarisbrick, Lancashire, on the Fylde Coast.

With an HND in horticultural sciences and previous experience with Henry Alty Ltd, Mark, 30, was a Technical Sales Advisor covering the 15 South Eastern counties for Vitax, before training for his new post.

A very fine vintage at Reaseheath



This unique tournament is approaching its fourth season. The brainchild of Bruce Whitehead and Paul Mayman, it has been nothing but a constant success.

Due to its one of a kind invitational, over 70's structure, it has gained great recognition as the only one of its type. In fact a real niche in the market has been uncovered. This year's tournament has again started to make a name for itself. Staged in a small Cheshire hamlet envied for its natural characteristics, Reaseheath Golf Club provides the ideal venue.

Reaseheath College is a premier centre for training in the land based industries. Most noticeable is the HND Golf Course Management sector, whose students take charge of the event. This year's tournament is to be held on May 13. Purely invitational, the experienced over 70's field are already working hard on their games ready to peak in time.

Sponsorship and contacts gained by the students in their industrial placements has given the tournament a professional lift. This year's sponsor has been finalised as Jacobsen

PGA success assured from supporters

The response from members to the opportunity of joining a BIGGA Greenkeeper Support Team for the Volvo PGA Championship at Wentworth at the end of May has been overwhelming.

whelming. "Such has been the huge number of members who have asked to be included in the team I have been unable to contact everyone individually. However, I have now written to those have been selected and would like to take this opportunity to say thank you to those for offering their services to those who haven't been included," said BIGGA's Administration Manager, John Pemberton, who is organising the team.

"Hopefully the success of this inaugural Volvo PGA Championship Greenkeeper Support Team will see it continue in future years thus giving more people the chance of taking part," said John.

Techno Toro

The need to control irrigation systems as an integral part of golf course management, and the need to optimise water usage is becoming one of the key tasks facing Course Managers. Over the last few years the UK and Ireland has seen the installation of some extensive irrigation systems to greens, tees and fairways. The number of sprinklers, and the necessary complexity of the irrigation programmes, makes PC based control an essential feature for a successful operation. Toro has been at the cutting edge of PC based technology and its latest system is named SitePro.

SitePro uses full graphic depiction of the actual course on which it is installed these graphics show the position of the pipework, cables and sprinklers. Operation of individual sprinklers is activated by simply clicking on the sprinkler marked on the screen. This is only the beginning; full utilisation of the system features, flow management, weather station communication to calculate site evapo-transpiration rates and a range of course management reporting functions. SitePro represents the pinnacle of irrigation system control technology and all that is required to run the system is a basic understanding of Windows 95, and a knowledge of a turf irrigation practices.

For further information on Toro Irrigation Products call Graeme Francis on 01425 476261 or contact Hydroscape, Water House, 10 Carvers Industrial Estate, Southampton Road, Ringwood, Hampshire UK BH24 IJS Fax: 01425 472380.



Usually the spotlight falls on the Course Manager or Head Greenkeeper at a Club. Now it is the turn of those whose work often goes unheralded to star.



Name: Alan Jack

Club: Cathcart Castle

Position: Apprentice

Age: 21

1. How long have you been a greenkeeper? One year

2. What education are you currently undertaking? SVQ Level 2 at Elmwood College

3. Which one task do you most enjoy doing? Hand mowing tees and greens

4. Which one task do you most dislike doing? Divoting fairways on my own

5. What job other than greenkeeping might you have ended up doing? Before greenkeeping I was a professional footballer

6. Who has been the biggest influence on your career? Robert Hogarth, Head Greenkeeper at Cathcart Castle and Brian Hillan, Head Greenkeeper at Drumpellier

7. What would you do to improve the life of a greenkeeper? Less interference from mem-

bers

8. What are your hobbies? Football and golf

9. What do you get out of **BIGGA?**

Monthly magazine, Education, Reading articles on other courses and greenstaff

10. What do you hope to be doing in 10 years time? Head Greenkeeper

Scotts Company Tykes bowled has big move all planned out

The Scotts Company has announced the formation of a new structure following the company's purchase of Miracle Professional in '96 and Levington Horticulture Ltd last year. The new company will be called the Scotts UK Professional Business Group and will be based at the Levington Horticulture offices at Bramford, Ipswich.

The new structure is a key step in the integration of the professional operations of the two businesses.

In the Turf and Amenity sector, products include Sierrablen, Greenmaster and Longlife fertilisers plus treatments such as Daconil, Casoron, Tritox and Turfclear are involved.

Under General Manager, Louis de Kort, the Scotts Professional Business Group will have a dedicated Professional Marketing Department headed by Martin Morgan and a Sales and Customer Service Department similarly focussed exclusively on profession-

al grower and amenity customers. To maximise the quality of service offered to customers, three new UK Sales Support Teams have been established with the the Turf and Amenity team being headed by UK Sales Manager, Chris Briggs.

General Manager Louis de Kort said: "The creation of a dedicated UK Headquarters for the new business is a tremendous step forward, enabling us to establish skilled and experienced teams to focus specifically on the needs of our UK customers. That we are able to base ourselves at the Levington Horticulture site is especially important, as it will facilitate close and vital liaison with the Scotts Research and Development operation, located at the same site.

The new contact details for the company are: Scotts UK Professional Business Group, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ. Tel: 01473 830492. Fax: 01473 830386.

Early bird bookings!

The South West and South Wales Region are already planning for BTME '99 and have put together the package for the BTME Express which includes luxury coach travel, leaving Tuesday morning and returning Friday afternoon, three nights B&B and entrance to all seminars. All for £95.

On top of that, where a Head Greenkeeper is bringing an assistant the price for the assistant is £85, but both must be from the same club. For greenkeepers under the age of 21 on December 31, 1998, 20 places will be available on a first come first served basis at £45. Members wishing to take advantage of this should apply in writing to Paula Humphries,



Truants Cottage, Zeal Monach-orum, Crediton, Devon, EX17 6DF. South West and South Wales Region wish to thank Amenity Technology for their generous help in sponsoring this event. A generous amount is also being contributed by the Region from the profits made at Westurf.

Payment may be made by instalment. Contact Paula on 01363 82777.

over by mower

The first orders for Huxley's new HD84M mid/rear mounted triple mower have been placed by North

Yorkshire County Council. Huxley Area Dealer Gibsons of Kirkham, Lancashire, secured the first order at the end of last year and, following initial evaluation, North Yorkshire County Council recently ordered a further two machines from Gibsons.

The Huxley HD84M hydraulic cylinder mower has been developed specifically for fitting to the Kubota ST30 28.6 h.p. hydrostatic drive tractor. The three cutting units can be raised and lowered independently to allow variable cutting width maximum 84" (2.13m) and minimum 57" (1.45m). Reel drive can be reversed for backlapping or for clearing obstructions.

Price for the Huxley HD84M (excluding tractor) is £8,990 plus VAT including independent hydraulic system and hydraulic oil.

For further information contact: Paul Huxley, Telephone: 01962 733222.

Moss control advice given

Weed control specialist Nomix-Chipman has issued a new technical advice sheet on moss control for hard surfaces and turf. This includes details on its non-residual moss killer which now has MAFF approval for use on internal and external hard surfaces.

Based on dichlorophen, Nomix' liquid Mosskiller delivers effective control of moss and fungi on paths, hard surfaces such as car parks and ornamental paved areas as well as lawns and fine sports and amenity turf. Mosskiller also offers an unrestricted number of applications through the season.

Mosskiller is applied by knapsack sprayer during active growth at rates of 17 litres/hectare (170ml in 10 litres of water for 100m2) when treating hard surfaces. For turf areas, the application rate is 50 litres/hectare (500 ml in 10 litres of water to treat 100m²).

For further information Tel: 01179 574574.

Sweet smell of success!

A new competition involving four man teams from golf clubs in South Wales is to be held at Celtic Manor Hotel and Country Club in August. Teams comprising the Course Manager or Head Greenkeeper, the Secretary or Club Manager, Chairman of Green or a member of the

Green Committee and the Club Captain or Vice Captain will play for the Golf Management Trophy sponsored by Scotts Turf and Amenity, on August 27, for the considerable prize of one tonne of fertiliser. The format for the competition is four ball better ball

with two score to count on each hole and the cost to enter plus coffee on arrival and a two course meal is £60 per team.

For further information contact Paula Humphries, BIGGA South West and South Wales Regional Administrator Tel: 01363 82777.

Scotch mist fails to help Peter

The annual match between BIGGA Scottish Region and the Assocation of Golf Club Secretaries, at Glasgow Gailes GC, ended in defeat for BIGGA and their Captain, Regional Administrator, Peter Boyd.

While still a rookie, Captain Boyd, did manage to amass an impressive array of excuses for the 7-3 defeat in the 20 man aside contest – the team had been fooled by the lack of rain; the team had been fooled by the lack of wind and finally that the secretaries had made full use of their handicaps.

I don't think Seve himself would have been able to come up with a better set had the Ryder Cup result gone a different way.

"Despite the result everyone had a most enjoyable day with the weather being kind and the hospitality from the golf club first class. Our thanks to the Captain and Council of Glasgow Golf Club for affording us the facilities for the day," said Peter.

The BIGGA winners were

Willie McMeakan, Turnberry Hotel, and John Scott, Kirkhill GC, who won by the handsome margin of 7&6. Elliott Small, Tulliallan GC, and Martin Lothian, Turnberry Hotel, and Stuart Crawford, North Berwick GC, and Steve Sullivan, Craigie Hill GC halved their matches while Peter Boyd himself also managed a win.

"We look forward to next year's fixture and hopefully we can improve and regain the Trophy," said Peter.

Aerators get to the point

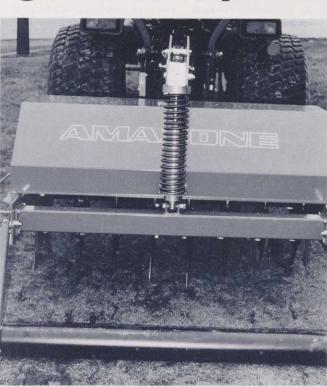
Amazone Ground Care has launched new range of slitter/aerators. The new four-model range incorporates a unique blade configuration that ensures high point pressure across the full width of the implement at high operating speeds, while exerting 91kg point pressure for entry into the thickest thatch.

Designated the Amazone, SLC and SLS series, they replace the current SL range. All the new models are three-point linkage mounted. The SL has a 1.2 metre working width, the SLC 1.2 metres and 2.4 metres; that of the SLS, which features a new contour following system, is 1.2 metres.

The SL forms the base of the new range and is intended for working on flat ground. Its fully enclosed 1.2 metre-wide grounddriven rotor is fitted with 40 blades, each of which, uniquely, is mounted with a 10 degree offset.

With that pattern, all the points in contact with the surface penetrate the ground to an equal depth when the slitter is driven forward, so eliminating the 'walking' effect associated with some blade layouts.

Both the 1.2 metre-wide SLC and the 2.4 metre-wide version also feature contour following through a floating chain and bar support at the rear of the implement. Penetration depth on



these models is by means of weights around the rotor axle.

At the top of the new slitter range is the 1.2 metre-wide SLS. This model features a new contour following mechanism, comprising a front-mounted hydraulic depth ram connected through an arm to a pre-loaded spring anchored to the frame at the rear of they implement.

When crossing an undulation the operating depth is maintained through ram pressure, while the spring releases to enable the tractor's rear wheels to remain on the ground, so maintaining traction.





Tracey Maddison is BIGGA's new Membership Services Officer having taken up the post at the beginning of April.

A native of York, Tracey joins the Association having recently completed a three year Leisure Studies degree course at Leeds Metropolitan University where she became interested in training and development and membership/sales.

"Since leaving university I have gained experience in the design of training and development material as a desk top publisher within a management consulting company" explained Tracey.

"I returned to education after eight years or so working in a variety of administration/secretarial roles and perhaps more excitingly travelling around the world for a year, visiting Indonesia, Australia, New Zealand, Thailand, Malaysia and Europe, where I saw some of the most amazing golf courses, from the most beautiful to the most obscure!" she added.

"I have many hobbies, most of which are sport orientated, including golf which I played in my past and will possibly take it up again now that I am situated in such a lovely locality as Aldwark Manor. I also enjoy squash and aerobics."

THE





"I HAVE USED

With Textron's acquisition of Ransomes now complete, a new Textron Turf and Specialist Vehicles Group has been created and the rationalisation process to pull together Ransomes and Jacobsen in the UK is well underway

This process has involved a careful assessment of the requirements of each of the businesses in the Group and a full audit of all the physical and human assets that the company possesses.

The decision has now been taken to headquarter the new Group at Ipswich, the established base of Ransomes, and to combine the activities of Ransomes Textron and Jacobsen Textron on this site.

A number of key staff will be relocated and the principle objective is to ensure a continuity of the high quality levels of service for customers of both Jacobsen and Ransomes.

Textron Turf & Specialist Vehicle Group now includes brands such as Jacobsen, Ransomes, Cushman, E-Z-GO and Ryan. It is the company's stated intention to support fully each of these brands.

David goes



Etesia has appointed of David Shepherd as Area Manager for the western side of the UK. David will look after a territory covering Wales, the West Country and the north-west, where he will be responsible for maintaining the company's existing dealer network and seeking opportunities to increase Etesia's market share.

"In the nine years since Etesia entered the UK market, the company has continued to affirm its commitment to selling quality machines through specialist dealers who can offer customers the kind of service and back-up they expect. The close support our Sales Team provides is a key link in ensuring complete satisfaction at every junction of the sales process," said UK Sales Manager, Robin Taylor.

Ipswich becomes new Textron HQ No bugs with this **Millennium winner**

The Sisis Ecospray, drift-free sprayer, has been selected for the first tranche of Millennium Products.

In September last year, Tony Blair, launched Millennium Products and began the search for the country's most innovative products and services. The challenge went out to submit for consideration ground-breaking products that will change the way we live in the 21st century. The aim is to have 2000 examples of British business ingenuity by the new millennium.

The selected products are allowed to carry the Millennium Products marquée, will go on display in national and international exhibitions and will be a major feature in the Millennium Dome at Greenwich. They will also be fea-tured on the Millennium Products website which went live in April.

The Sisis Ecospray was seen as an environmentally responsible sprayer, solving one of the major problems with conventional sprayers.

Most sprayers are based on agricultural models, with the attendant problems of spray drifting from the intended target. Spraying contractors, and indeed all users of spraving equipment, have to take great care to protect people and environment alike and should only spray when weather conditions permit. A slight breeze can cause a pesticide application to be abandoned; even on a still day, a freak gust of wind can cause damage to adjoining vegetation or watercourses.

Each unit on the Ecospray, there-fore, is enclosed by a shroud to reduce "drift" to an absolute mini-

mum. Solid covers can alter the spray pattern; the Ecospray has spe-cially designed and patented, perforated, shields developed in conjunction with an experienced spraying contractor and Cranfield University, who implemented computer modelling and wind tunnel tests to achieve the optimum design. Bubble jet nozzles were fitted to give a more uni-form droplet size, which also reduces drift and improves leaf contact. Sisis subsequently developed the original idea into a viable, commercial product.

The Sisis Ecospray is available in two models, 5-unit towed gang and 3-unit fully mounted. Other models will be available shortly. The first production models are now in use with spraying contractors Complete Weed Control Ltd.



Brushcutter with designs on success

The Stihl FS 85 brushcutter has been chosen to join the permanent collection at London's Design Museum, of objects representative of late 20th century industrial design.

The Conran Foundation, was set up by Sir Terence Conran in 1993 to assemble a collection of industrially designed mass-produced objects. Each year a British resident with an 'educated' awareness of design is given £27,000 to construct a collection of their own choice. Selectors can choose anything from domestic items are packaging to vehicles. The only criteria are that they must choose "things they would like to live with" and that are "in current production"

In time, a fascinating collection of mass-pro-

duced design will be formed, representing changes in design technology, as well as individual tastes. Such a collecting policy is unique among museums worldwide and will result in a truly fascinating collection that will provide a major design resource for the late 20th century and beyond.

The collection currently on display has been specially chosen by Dan Pearson the well known TV gardening presenter and Sunday Times' gardening columnist.

In selecting the Stihl FS 85 Dan Pearson said, "Lots of strimmers are very flimsy, but this professional quality model is designed to last. The frame is lightweight but strong and the nylon blade can be replaced."



Chris Yeaman, of Swanston GC, in Edinburgh, has come up with an interesting old photograph taken in the mid '80s during a trip by Scottish greenkeepers to the Ransomes factory. Included among the assembled group are some familiar faces captured in their prime of life, including current

Scottish Regional Chairman, Jimmy Neilson, South East **Region Board of Management** member, George Barr, Ray Day and Steve Dixon. Also in the picture, eighth from the right,t is Eddie Holt, of Dunnikier Park, Kirkcaldy, who has since died but for whom an memorial trophy is played each year.

Nixon gives thanks for vote of confidence

I am writing to express a big thankyou to all involved with BIGGA and Toro for organising and providing a trip of a lifetime to the USA. I will never forget the way I have been received and looked after since winning the Toro Student Greenkeeper award.

I would also like to emphasise the professionalism of BIGGA and Toro, they both put a great deal of work and effort into improving our industry and because of this, I was proud to represent them in the **USA**

Lastly, I would like to thank Askham Bryan College for putting me forward for this award and providing me with a first class education, and a special thanks to Mr Steve Prinn (course tutor).

Steven Nixon Toro Student of the Year

Kubota challege tees off

The inaugural Kubota Golf Club Challenge event has got off to a flying start with a full entry of 500 teams representing golf clubs from throughout the UK

Being played over a series of five knockout matchplay rounds culminating in a Grand Final at Woodhall Spa Golf Club in October for the 15 remaining clubs, the Kubota Golf Club Challenge is an all-new golf tournament for teams of two players comprising the Secretary and the Head Greenkeeper of each competing golf club.

Tournament organiser, Sporting Concepts Ltd, said that the event is proving a tremendous success, having been over-subscribed by more than 100 entries in its very first year.

Rene Orban, Deputy-Managing Director of Kubota (UK) said, "Kubota has established an excellent working relationship over many years with golf club secretaries, greenkeepers and Course Managers. This tournament further reinforces our commitment to UK golf clubs and those who work in them.

clearer outlook...

Shropshire-based All Glaze has introduced a nationwide on-site fitting service for the replacement of broken cab glass using Amma-Glas, a clear plastic glazing alternative to glass. Not to be confused with perspex, Amma-Glas offers :

- · Excellent impact strength, withstanding the impact of errant golf balls and low tree branches, thus offering the machine operator a safe working environment.
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Amma-Glas is available in clear and tinted, replacing any flat and some curved glass. For further information contact

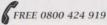
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News from Pattisson's

The Oakland Tee Marker is a brand new product from Pattisson's. Made from recycled waste polystyrene but wiht a wood effect, it is extremely durable and environmentally friendly. The body of the Oakland is colour impregnated so that if the surface becomes worn it is not noticeable. The ends are painted white with vinyl numbers and the marker is fitted with a single aluminium peg which is both resistant to erision and can be easily put into the ground.

The Windsor Tee Marker is part of the Windsor Tee Collection which consists of a divot box, tee marker and a litter bin. They are all made from moulded plastic. It will hold a plate for course or sponsorship details and is hollow so that it can be filled with sand or water for ballast.

The Sarrell Roller has been a part of the Pattisson's range for some time but it has been joined by a one and two drum version which are expected to be popular with people needing to aerate a small area of land.

Pattisson's has appointed Matthew March to its Sales team. Matthew will be looking after Pattisson's ClubCall members as well as the trade export side of the business.

Boost for Huxleys

Huxleys has received keen interest and important orders from a number of prominent golf courses since taking on exclusive responsibility for the supply and installation of Campbell Turf.

Among the first customers to specify the advanced synthetic turf as a replacement for natural and artificial surfaces on golf tees and pathways were Marriott Hotels - Meon Valley, near Southampton; St Pierre, near Chepstow; and Dalmahoy, near Edinburgh.

The most recent of the installations is at Dalmahoy, where eight Campbell Turf winter tees have been installed - four on the East Course and four on the West.

"We are delighted with the allround improvement," commented Dalmahoy's Director of Golf, Brian Anderson. "I play off the surface myself and it is just like striking the ball from a good lie on natural turf."

Installed on the par threes on Dalmahoy's two 18 hole courses, Campbell Turf not only looks and feels like grass, giving golfers the ability to control the ball through the air, but the material will also accept a normal tee peg pushed into the pile.

Huxleys will be pleased to provide full information, quotations and details of other Campbell Turf installations in the UK on request.



Toro Scottish dealers A M Russell have scooped a hat-trick of successes in the turf maintenance equipment manufacturer's latest annual dealer awards. The Edinburgh-based firm ran off with the top accolade of Best Overall Dealer, as well as picking up the award for Best Sales Increase and producing the Salesman of the Year, in the shape of Alistair McRobert. The award for Best After sales Service went to A T Oliver & Sons, in Kings Langley, Herts. Winners were presented with their plaques by Graham Dale, Managing Director of Toro distributors Lely UK, and Bob Buckingham, The Toro Company's European Sales Manager. Pictured from left to right are: John Cockburn, A T Oliver's Sales Manager; Director Joe Zawinski and Managing Director Brian Goudie, principals of A M Russell, Graham Dale, Bob Buckingham and Alistair McRobert.

Full range on offer at new academy

Work on the six hole Greenkeeping Academy at the Berkshire College of Agriculture for which the first turf was turned by then BIGGA Chairman Pat Murphy last year, has begun in earnest.

J & E Ely are the contractors. They have worked with the College previously and have close links with the architect, Donald Steele & Co., and many of the Rootzone sponsors including Banks Amenity Products and Bardon Aggregates.

The majority of trees were planted and the broad fairways shapes were cut over the winter.

The irrigation supply will hopefully incorporate the use of grey water and will demonstrate all types of systems from valve in head gear driven through to impact heads. These heads have been sponsored by Toro, Rainbird, Hunter, Watermation, Weathermatic and Nelson via suppliers. The consultancy has been sponsored by York Martin & Co.,

The greens have been designed not only to challenge golfers, but also to show the problems that certain shapes create for maintenance. The architecture also shows the green shapes approximately repeating the period of their construction. The green constructions cover the 20th century. They include 1900s soil based Tom Morris shaping; 1920–30 clay boiled green.

1920–30 clay boiled green. A great deal of sponsorship has been received. For example the perched water table used by Donald Steele & Co. is sponsored by Banks Amenity products and Bardon Aggregates. The UGSA type is sponsored by Hepworth Minerals and Chemicals Ltd. The modern Dutch green which uses full sand rootzone has been sponsored by Roffey Ltd. who have also sponsored the recycled materials green finally a tee will be constructed using a hi-tech foam based system sponsored by Greenscape (UK) Ltd.,

The areas will be seeded with greens and tees sponsored by Mommersteeg Ltd. Considerable time has been given

Considerable time has been given by the Industrial Liaison Team, these include Malcolm Peake, and Martin Gunn, of Temple Golf Club; Allan Collis, of Castle Royle, and Ray Clarke, of Harleyford Golf Club.

Michael Bonallack, Secretary of the R&A who have been major sponsors, will open the Academy officially in the autumn of 1998.

Rain Bird set to fly stateside

Rain Bird has signed an agreement with American Golf to be the exclusive supplier of irrigation equipment to the world's largest golf course management company.

American Golf operates more than 260 private, resort and daily fee golf courses and practice centers in the U.S. and the United Kingdom.

The three-year agreement allows the exclusive use of Rain Bird products on all American Golf new course irrigation system installations and/or major renovations to existing systems. It is estimated that American Golf will use Rain Bird products in nearly 20 new course irrigation system installations in 1998.

"American Golf is very pleased to be teamed up with the golf industry's leading irrigation software and whole goods company," said John Meyer, American Golf's Director of Fleet Management and National Accounts.

"Rain Bird's exceptional products and expertise will help us continue our commitment to providing the most superior maintenance possible at our courses nationwide."



Ken Richardson reports on how things are hotting up, as competition deadlines loom...

A sporting chance

This month sees the deadlines for entry to three of BIGGA's major competitions, ie the TORO Award for Greenkeeping Excellence and Student Greenkeeper of the Year Competitions and the BIGGA Golf Environment Competition in association with Amazone Ground Care and Rhone Poulenc Amenity The entry deadline is 31 May for all three competition so make sure that you have a chance to win by making sure that your entry is sent to BIGGA HQ by the closing date.

The TORO Award for Greenkeeping Excellence

The search to find the 1998 winner for the TORO Award for Greenkeeping Excellence is hotting up. You still have time to nominate your choice, however, as entries need to be at BIGGA HQ by May 31, you need to make sure that your nomination is in the post, today.

Does your Head Greenkeeper deserve to be recognised for his efforts? Does your club want to win a TORO 3000 series triplex mower? Do you want to visit the GCSAA show in Orlando and the TORO factories in Minneapolis and California in February 1999 for free? If the answer to any of the above is yes then fill in and return an official entry form or telephoning Ken or Sami on 01347 838581. Remember, this competition is open to all Head Greenkeepers/ Course Managers. Initial judging, to select up to eight finalists will take place during June/July, by a panel of experienced, retired head greenkeepers, led by Walter Woods. The National Final will be held in Harrogate on 25/26 October.

TORO Student of the Year

Entries for the TORO Student of the Year competition need to be at Aldwark Manor by May 31, 1998. Regional judging will take place during the week commencing July 27 when a panel of three judges will select up to eight national finalists. The National Final will will be held in Harrogate on October 25-26 alongside the The TORO Award for Greenkeeping Excellence Final. Make sure that your college or training provider submits an entry for this prestigious competition and you could win the TORO Scholarship for 1998, attending the University of Massachusetts for a six weeks turf management course as well as visiting the TORO factories in Minneapolis and California.

The BIGGA Golf Environment Competition

This year, 1998, is the second year BIGGA has run this that Competition in association with Amazone Ground Care and Rhone Poulenc Amenity. Golf clubs throughout Great Britain are beginning to the benefits of entering which at the very least can give your club a detailed environmental survey and action plan. However, if you win then your club could win the £5000 first prize and the added bonus of being recognised as the top environmentally managed golf course. Complete your application form today and send it to BIGGA HO or contact Ken or Sami for further details.





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This month, Geoff Steel gives advice to those wishing to invest in a TESSA...

TESSAs (Tax Exempt Special Savings Accounts) provide excellent low risk savings for tax payers. Introduced by the Government to encourage savings, they offer tax free returns on deposits with a bank or building society. Normally 20% tax is deducted from the interest in a savings account, but in a TESSA the interest is paid without any tax deduction.

Savings can be from as little as £10 per month but £3,000 can be saved in the first year, plus a maximum of £1,800 in subsequent

years up to £9,000 in total. The savings must be for a five year period. All banks and

All banks and building societies offer TESSAs but interest rates can vary widely. It is important to shop around to get the best rate.

Checking on the current published rate, one High Street name who regularly advertises as being good for savers is paying 6.6% on £3,000 savings. Another well known bank is paying 7.75% on the same amount. Over five years this can amount to a very significant difference in the returns. There is a company

There is a company called Money Facts that publishes the up to date interest rates of all the banks and building societies. Anyone can obtain the current information by faxing them on 0336 400238. Calls cost 50p per minute and there are currently eight pages of information. Alternatively you can telephone me on my free telephone line 0800 783132 and I can provide a selection of current interest rates on offer.

TESSAs are to be replaced by the Individual Savings Account (ISA) in April, 1999. The new ISA is more restrictive for savings in a bank or building society and anyone thinking of starting tax free savings should start a TESSA now. Once started it will be able to run for the full five years.

Remember though you can only have one TESSA at a time.

Matured TESSAs, however, can be invested in a TESSA2 enabling savers to take out a new TESSA.

For savings over a longer term, investment returns have, in the past, always been better from company shares. Personal Equity Plans (PEPs) provide tax free returns from investing in company shares and are completed different to a TESSA. PEPs will be explained next month.

Geoff Steel is an Independent Financial Adviser with Walsh Lucas & Co and he welcomes comments from readers. His Freephone telephone number is 0800 7835132.

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Ad Ref 403

LOCAL SERVICE CENTRES NATIONWIDE.



Roger Holt, of Agenda Training Limited, looks at the Managers' safety role

Crash courses

The Supervisor's and Manager's role in safety has been recognised as crucial to the success of business operations for many years.

A Company's commitment to Health & Safety is made in a number of ways, through its Policy Statement, its adherence to legislative requirements and through the design of jobs which fully recognise hazardous steps.

Once these are identified job training can be designed and safety campaigns mounted to ensure that, as far as possible, staff accidents and dangerous occurrences are minimised. Daily identification of hazards and risks which can occur is a vital plank in the management of safety and can be overlooked if a culture of continuous attention is not maintained. Qualifications for safety profes-

Qualifications for safety professionals have long been widely accepted as a commitment of business to this area, but many firms do not have a full-time or part-time person in this role.

However, a qualification for managers has been developed by the Institute of Occupational Safety and Hygiene called the Managing Safely Certificate. This important qualification gives supervisors and managers a range of skills and techniques to improve this vital area and underpins the commitment of the business to safety.

There is no doubt that the cost of accidents and lost time will continue to rise and larger firms are now looking for evidence of commitment to staff safety and welfare as a condition of dealing with suppliers.

The course, which is delivered over a three day and a two day module, incorporates the firm's safety procedures and covers the following topics.

- The legal framework for health and safety at work.
- The nature of commonly occurring hazards.
- Human behaviour which affects safe working.
- An indication of risk and why incidents, damage and accidents occur.
- The communication of health and safety.
- Revision and course assessment for certification.

The assessment is by a written paper and a short project related to the delegate's work place.

In order to discuss further how you can profitably take this crucial next step please ring Jean John on 012082 831973 or Roger Holt on 01203 696511 at Agenda Training Limited.

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- Iron and magnesium added to improve turf response, colour and hardiness.
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Roland Taylor looks back (but does not remember!) to the days when greenkeepers used scythes to get a quality finish on their greens.

Scythered sources would you source and sources and sou



It's dawn and the sun is just breaking through the mist that shrouds the courses. A heavy dew sparkles on the greens, it is an ideal time for mowing and the greenkeeper and his staff prepare for another day. There is no roar of an engine firing-up, just the sound of stone against metal

The year is 1890 and any form of mechanisation for many golf courses is still a long way off. Scythes keep the grass short and early morning is the best time to use them. The wet grass stands well to the blade. Mowing with a scythe required a great deal of skill, but in the right hands a reasonable surface could be achieved, although it was far from the immaculate playing surfaces of today.

Budding's patent gives us an idea of what it looked like - "circular sears, bare places and equalities continued for several days". The operation was slow - it took three men a day to cut an acre and then the clipping had to be brushed up and the green rolled. There were also long delays as golfers played the green.

For some, a salvation was available - but it was expensive. Although it was mainly the rich who played golf, money for maintaining the course was in many cases not readily available. Numerous companies had adopted Budding's cylinder mower design both here in the UK and in the USA, so there were plenty of mowers to choose from. The one favoured by most of the greenkeeping fraternity was the 'Greens Silens Messor Deluxe'. Built in Leeds, this mower had what was then a unique feature - it was self-sharpening. When the blades became dulled you simply reversed the cylinder drive and they were sharpened - backlapping had arrived!

Although we do not know how many cuts per yard this machine produced, the finish was far superior to scything, and raking-up was eliminated. An 18" model cost £7.10s (£285 at today's prices) so it was relatively expensive.

Progress in the development of professional mowers was slow. This is probably due to the limited number of machines a manufacturer was likely to sell. An essay written by a greenkeeper in a 1929 competition illustrates the conservatism that was prevalent at the time. He states that he prefers the Greens Silen Messor and would not use a motor mower on his greens. Another entrant lists among his equipment the Ransomes Certes. This had been introduced in 1924, specifically for mowing fine



turf, and was to continue in production for 34 years.

Ways to increase productivity were being sought and a Mr Worthington of Shawnee, USA patented a power unit for taking three hand greens mowers (the forerunner to the triple mower). Known as the "Overgreen" it enabled one man to mow 18 greens in a day, but the machine was cumbersome and far from easy to operate. There was no way of lifting the mowers, so each half of the green had to be mown one way. The big benefit was that it released labour for other jobs.

Although the first commercial petrol powered mower had been introduced in the early 1900's, another three decades passed before the first turf fine machine for greens was introduced. Even then, greenkeepers were reluctant to change. Many were worried about the weight, and the possibility of oil or petrol being spilt. The Lloyds Pegasus was a lightweight

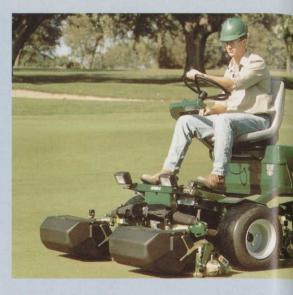
machine with a one horsepower engine that provided power only to the cutting cylinder. At normal walking pace it was said to produce a 105 cuts per yard.

R a n s o m e s quickly followed with their Certes and, in 1952, introduced the Auto Certes, which was selfpropelled. Over in the

Over in the United States, things were also happening and in 1970, Ransomes imported the

Hann Tournament Triplex which they later manufactured. At the time, it must have seemed a world apart from what had gone before. The operator rode instead of walking. Cutting greens would never be the same again.

Over the last two decades, golf has become the most important sector for the major manufacturers of professional grass cutting equipment. As a result, competition has led to a considerable amount of money being spent on research and development. The combination of this, modern engineering technology and materi-



als has taken the cylinder and bedknife cutting principle virtually to its zenith. Two other introductions, hydraulic drive and small diesel engines have been major contributors to the development of today's machines.

While it is good to have a choice when considering new equipment, the plethora of greensmowers now available can make selecting a machine more difficult and time consuming. A look around the marketplace and reading available literature is the first step towards the final decision.

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Pedestrian operated greensmowers

It is generally considered that this machine is still the best for getting as near to a perfect finish as possible, providing one has the labour and time available. What appears to be the modern approach is for a triple to be used to regularly mow greens, but for special events the pedestrian comes out.

A close look at the specification of most pedestrian greensmowers on the market reveals a lot of similarities. Sizes range from 18" up to 24" and engines vary only in the name on the label. In addition to quality of cut, features to look out for at a demonstration include handlebar design, control layout,

balance, straight-line tracking and noise levels. Grooming reels for removing surface stems and rotary brushes are available as an optional extra.

There is one model with a floating cutting unit that is said to be an advantage on heavy, undulating or stepped greens.

Ride-on greens mowers

The modern greensmower is a sophisticated piece of precision equipment and there are plenty of features to look out for. Unlike the pedestrian machines, there are considerable differences between the brands now available.

Initially, weight and ground pressure were cause for concern (echos of the past). Designers have addressed these problems and today's machines use the latest technology and materials to distribute the loads and keep weight to a minimum. It is worth sorting through the literature for all makes of triple greenmowers, as there have been some interesting developments in recent years.

Mower heads

Very few greens, if any, are perfectly level, so a degree of both horizontal and vertical movement is necessary to avoid turf damage. Methods of mounting the units vary, with some manufacturers mentioning steering to avoid marking or scuffing when turning.

Every type of power source is now covered with a choice of petrol, diesel or electric. Noise level is an important factor and engine manufacturers have addressed this aspect. The results are power units that produce a higher torque at lower rpm, and as a result, both noise and vibration are reduced. Noise emission levels are worth checking out between different models.

Ergonomics

The greensmower has got to be one of the most important pieces of

equipment on the course and, like all precision machinery, the more comfortable an operator feels and the easier it is to use, will reflect in the results. Seat positioning and adjustments, levers and pedals siting and console layouts all play their part and need to be taken into account when comparing different makes. Driving position and general layout can vary considerably. Other features that should be on the list for consideration include:

Range of optional equipment Ease of interchange of attachments

Monitoring systems, including engine and whole machine Safety features and early warning systems such as hydraulic oil leakages

Maintenance and accessibility Availability of replacement parts and back-up service **Operator training** Finance packages to spread the

load

While this enables one to access a machine's ability it is also an opportunity for those who will use it to find out if they feel comfortable operating it, so everyone should be involved.

Third party endorsement Supplier will furnish names of existing users but it should be borne in mind that they are likely to be



very satisfied customers. It is also worth doing your own thing and asking questions at shows and area meetings of the type of equipment other greenkeepers are using and its performance and reliability. I am sure you already do this.

The greens are the most focused point of every course. It is where the game is won or lost and where a greenkeeper's skills are most judged. A craftsman always buys the best and you deserve and need the best to keep ahead. Make sure you get it.

Finally, next time you fire up the latest greensmower with all its high tech spare a thought for your prede-cessors a 100 years ago, swinging their scythes in the early morning sunlight.





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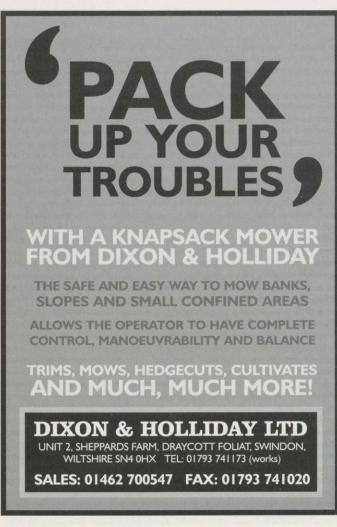
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Dr Stephen Baker, Head of Soils and Sports Surface Science at the STRI, examines suspended water table greens construction

Kept in

The suspended or perched water table method of golf green construction is now widely used, for example forming the basis of the USGA (United States Golf Association) construction method. However few people understand exactly how the suspended water table (SWT) works and this is important as the physics of water movement and water retention determine the advantages and disadvantages of SWT greens. Abuse of some of these soil physical principles, particularly in terms of material selection and quality control, can turn a potentially very successful method of golf green construction into a wet, water retentive putting surface or conversely one susceptible to drought stress that is very hard to manage.

How does water move in golf green profiles?

The movement of water in any soil is influenced by a number of forces acting in different directions. It is a bit like tug of war on the individual water droplets; if the force in one direction is greater than the force in the opposing direction of the greatest force. The first major force is gravity and just like the effect on Isaac Newton's apple this force will pull water downwards. If there was no opposing force, all water would drain out of a rootzone very quickly, taking soluble nutrients with it, and our putting surfaces would quickly revert to a mass of dry sand or soil.

Fortunately there are opposing forces and indeed forces that can be manipulated by our selection of rootzone materials and the depth of the rootzone layer. The forces acting against gravity are firstly the surface tension of the water and secondly water adhesion to soil particles. Surface tension occurs at the interface of air and water because of the forces attracting the water molecules together and, combined with adhesion, these capillary forces are sufficient to hold water in the soil. Think back to school days and you may recall physics lessons in which fine capillary tubes were put in a beaker of water - water would rise in the tubes and the finer the hole in the tube the higher would be the column of water. If you think of the pores (ie the spaces between sand and soil particles) in a golf rootzone as a series of capillary tubes this is an important first step in understanding the suspended water table.

Although most water movement is

downwards under the influence of gravity, there are times when the capillary forces are greater than the force of gravity an upwards movement will take place. A good example occurs if you put columns of dry sand in a con-tainer of water. Water will move upwards by capillary rise in exactly the same manner to the capillary tube the finer the sand the higher will be the level reached by the water. In a fine sand water may rise 300 mm (1 foot) or more but on a coarse sand the amount of rise may only be 100 mm (4 inches or less). Have a look also at stockpiles of sand drying out after heavy rain - particularly if the particles are uniform in size there is often a distinct line separating the drier sand at the top and the moister, therefore, darker, sand below. Yet again the same principle - the height of the line is determined by the grain size distribution of the sand.

Rates of water flow in porous materials

The other main factor that is important is understanding water movement in golf green profiles is to consider how quickly water will flow in pores of different sizes. If the pores are saturated (ie completely full of water) the situation is straight forward - the larger the pore or tube the faster the flow rate. Indeed the flow rate increases dramatically with pore size thus a fine sand may have saturated hydraulic conductivity of 500 mm/hr, while the comparable figures for a coarse sand and a gravel are in the order of 5000 mm/hr and 100,000 mm/hr. On the other hand as a soil dries out water is first lost from the largest pores thus water movement has to take place through finer and finer pores and thus flow rates decrease dramatically.

In the case of a gravel drainage layer, flow rates vary considerably depending on the moisture content of the gravel. When there is heavy rainfall and the gravel is close to saturation, water entering the gravel drainage layer moves quickly through the gravel to the underlying drains. However once water is lost from the large pores water movement can only take place along very thin films of water held tightly against the sides of the gravel particles and the rate of flow is virtually zero, certainly less then 1 mm per day.

The main process in the formation of a suspended water table results from the balance that occurs after initial drainage between capillary forces that

Ref 214

suspense

hold water in the pores against the downward pull of gravity. Water is eventually held more tightly in the pores in the rootzone than the gravitational pull at the interface of the rootzone and the underlying coarse material so vertical drainage ceases. The fact that unsaturated flow rates in the gravel are so slow is a complementary process reinforcing the effects of moisture retention in the rootzone.

Moisture profiles in golf greens

After heavy rainfall, drainage takes place with water being lost from the largest pores until gravity and capillary forces are balanced. This equilibrium situation is often termed field capacity and is generally reached in 24-48 hours. Evaporation from the surface and water use by the grass (ie transpiration) allows the soil to dry out further, with around 20 mm of water per week being consumed in summer conditions in the United Kingdom. In winter however evapotranspiration rates are low (often less then 3 mm per week) and thus moisture content in a golf green profile will be close to field capacity for long periods - wetting up during rainfall then draining back to equilibrium. The moisture profile at this equilibrium position is therefore very important as it influences the quality of the grass, especially its root development and also the playing quality of the surface.

Some of the factors involved can be demonstrated using results from a recent study at the STRI in which we examined moisture profiles of a number of rootzone constructions. Profiles were built inside plastic tubes which had an internal diameter of 150 mm. Two rootzones were examined, firstly a fine rootzone (77% medium-fine sand, 9% fines less than 0.125 mm diameter) and secondly a coarse rootzone (84% medium-coarse sand, 4% less than 0.125 mm). In addition there were variations in rootzone depth, blinding layer characteristics and in the gravel drainage layer.

We measured soil moisture content at intervals of 50 mm and the first thing to note is that equilibrium moisture content after 48 drainage varied considerably depending on the texture of the rootzone material and the height above the interface with the gravel.

On both rootzones moisture content approached saturation at the base of the rootzone and moisture content decreased with height above the interface of the rootzone and the underlying gravel, rapidly for the coarser rootzone but only slowly for the fine rootzone. This is a good demonstration of the suspended water table phenomenon and how equilibrium moisture content is influenced by particle size distribution.

Some practical points also need to be considered. For the finer rootzone the volume of water held at a depth of 100 mm from the surface of a 300 mm deep profile was approximately 30%. As the total pore space was only 39% this only give 9% air-filled pore space which is only marginal for healthy grass growth, especially as in wet weather the volume of air-filled pore space will decline further. Air exchange in the soil would be restricted and the root development could suffer. In contrast the contents of water and air at the same depth for the coarser rootzone were about 13% water and 25% air. Under these circumstances there should certainly be no problems in terms of air supply to the root system.

With respect to drought susceptibility, knowledge of the variation of equilibrium moisture content with depth helps prediction of how much water is available to the grass plant. Assuming that root depth is 100 mm and if the average volumetric moisture content of the top 100 mm of the coarse rootzone is 12%, then 12 mm of water is held within the depth of rooting. In contrast if the corresponding moisture content for the fine rootzone is 25% then 25 mm of water are held within the depth of rooting. In contrast if the corresponding moisture content for the fine rootzone is 25% then 25 mm of water are held within the depth of rooting. About 6 mm of this water is held so tightly in the finest soil pores that the suction exerted by the grass roots cannot extract is, so it is unavailable to the plant. Therefore the available moisture content is approximately 6 mm for the coarse rootzone and 19 mm of the finer rootzone. In hot summer weather between 2 mm and 3 mm of water are lost daily by evapotranspiration thus there is only two or three days' supply of water available in the coarse rootzone but around one week's supply for the finer rootzone. These figures somewhat simplify the situation on a real green as in practice soil moisture would move upwards from the lower part of the profile as capillary suction would increase as water was removed by the plant. Furthermore, evapotranspiration rates would slow down as the grass became more drought stressed and in addition the root system in the coarser material may be more extensive to compensate for the lack of water near the surface. Nevertheless differences in the moisture profiles would have a profound effect on irrigation management.

Effect of underlying layers on the rootzone

The work also showed some other interesting effects. Firstly the depth of the rootzone had a major effect on the moisture content of the surface 100 mm of the profile. The shallow 150 mm rootzone had a much higher moisture content than the 250 mm and 350 mm deep rootzones and particularly when the finer rootzone was used the pore space would have been very close to saturation. In practical terms a 150 mm deep rootzone would be unlikely to be used on a golf green because of the depth required by the cup. However tees constructed with only 150 mm of rootzone over gravel could be very water retentive and many bowling greens that are constructed with such shallow rootzone depths must be close to saturation throughout the winter with consequent risks of anaerobic conditions and black layer developments.

An excessively deep rootzone could also create problems especially if the rootzone were coarse and had a low water retention capacity. I have certainly heard of problems occurring on some courses in the USA and Australia where coarse rootzones have been used because of high intensity rainfall but rooting is often restricted because of summer heat stress. Under these circumstances a 300 mm rootzone can potentially be too deep because the main part of the suspended water table lies well below rooting depth.

From a soil physics of view there is a strong case to adjust depth if either very coarse or very fine materials have to be used because more suitable materials are not available. For example I once had to increase the profile depth of a soccer pitch construction in Saudi Arabia from 250 mm to 350 mm because only very fine sands could be found around the site.

Although our study showed that the use of different gravels in the underlying drainage layer had no effect on moisture retention, we did find that material selection for the blinding or intermediate layer had an influence on moisture content in the rootzone. When the intermediate layer was omitted moisture contents in the rootzone were higher, mainly because there was a very pronounced difference in grain size at the interface of the rootzone and underlying gravel, meaning that there was no extra capillary pull from the underlying layer. In contrast for the finest blinding layer material there would have been some continuity in pore size and moisture content at the surface of the rootzone was slightly lower. We are currently investigating these effects in more detail in a study being carried out for the USGA.

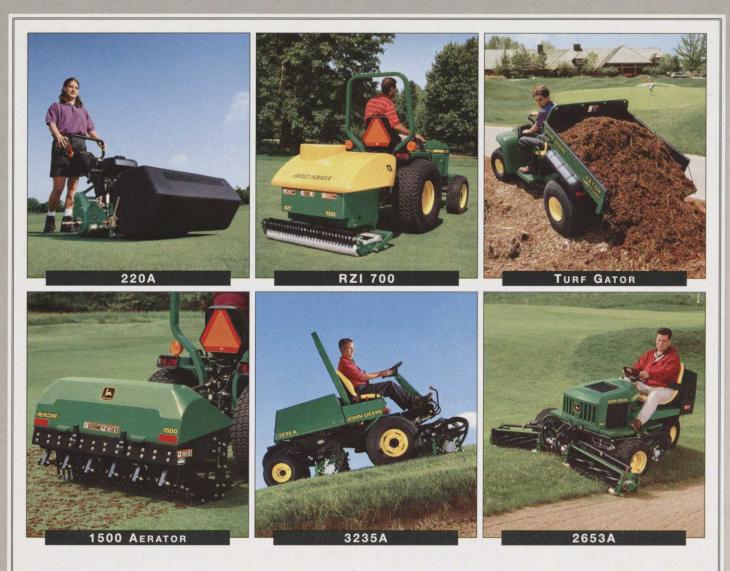
Assessing water retention characteristics of rootzones

An indication of the potential soil water status of the rootzone material can be obtained from samples compacted in controlled laboratory conditions. USGA guidelines for rootzone materials are:

Total porosity	35-55%
Air-filled porosity	15-30%
Capillary porosity	15-25%

These requirements are designed to cover a range of climate zones and for United Kingdom conditions total porosity values would normally fall between 35-50% and very high airfilled porosity values are not normally needed, especially as this will be generally at the expense of capillary porosity, thus making rootzone materials potentially more droughty. When these limits were originally specified they were based on laboratory tests using a tension of 400 mm of water but in 1994 the test tension was revised to 300 mm to be compatible with the rootzone depth. On soil physics grounds this change in tension was entirely logical but as the requirements for air-filled porosity and capillary porosity were not also modified we have notice that this did seem to cause some apparently perfectly suitable mixes for UK conditions to fail because of slightly low figures for air-filled porosity (eg 13 or 14%) and slightly high figures for capillary porosity (eg 25-28%). The change in test protocol favoured coarse rootzone materials which although suitable in other parts of the world would be harder to manage in this country on fescue/bent (and annual meadowgrass) greens.

Unless the requirements are adjusted it is proposed that for United Kingdom conditions tests should be carried out at 400 mm tension and unless specifically requested the STRI will carry out all future tests at this tension.



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The wonderful Letham Grange Resort plays host to **BIGGA's National Tournament in association with** Scotts/Miracle in August. As Scott MacCallum found out it should proved to be a event not to be missed...

Home on the



If there is one nasty habit of which sports writers are guilty - I can hear the incredulous cries of "Only One!" - it's labelling. How often have we heard about "The Next George Best!" A young guy called Peter Marinello

laboured under that burden with a spectacular lack of success for Arsenal in the '70s, while Ryan Giggs has come a little closer to living up to the billing... and at least plays for the same team. Isn't Ronaldo supposed to be "The New Pele"?

How many times have Wales come up with "The

New Barry John" or "The Next Gareth Edwards", or there is a middle order batsman who can bowl a bit

and all of a sudden he sees his name in the papers as "The New Botham"? In golf the list of players who have struggled to live up to being called "The New Nicklaus" or "The Golden Bear Cub?" is embarrassingly long - Johnny Miller and Ben Crenshaw at least won a few Majors but the likes of Hal Sutton and Scott Verplank, to put it mildly, didn't get very far in the chase to match Nicklaus' 18 Major Championships. At least

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they had the same colour of hair! However, another subject of journalistic "labelling" in the golf world hasn't suffered from the same damp squibb fate as some of those mentioned and has, in fact, actually enjoyed its comparison with a more illustrious cousin. About 12 years ago a former

About 12 years ago a former boss of mine, Malcolm Campbell,he was Editor of Golf Monthly travelled to Angus with three times Open Champion, Henry Cotton, who had been invited to open a new golf course.

when he came to write about Letham Grange, near Arbroath, Malcolm labelled it "The Augusta of Scotland". Many people scoffed but Malcolm did speak with a level of authority. He'd visited hundreds of golf courses during his journalistic career, including Augusta National, and his opinion was one which was genuinely held.

Visiting Letham Grange, which this year plays host to BIGGA's National Tournament, in association with Scotts/Miracle, you will



be able to see how Malcolm came to that conclusion.

Sure, the real Augusta, in Georgia, offers so much that can't possibly be matched by this little corner of Scotland, but it would be a very unforgiving eye which could not see some similarities.

"I believe the spirit of the quotation was that Letham Grange felt like Augusta rather than that we were trying to duplicate it. It is designed as a tribute to Augusta," explained Resort Manager Gordon Kingsford-Smith.

Having said that there are individual holes which have a more than passing resemblance to their transatlantic relations. For example the 2nd is a short par three guarded by a lake which is an obvious close relation to the 16th which has seen so much drama at Augusta.

But is is not just Augusta from which Letham Grange draws its inspiration. The run of three holes between the 8th and 10th have been compared to the run of 10th,



New Head Greenkeeper 'David Mathie' with Resort Manager Gordon Kingsford Smith

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11th and 12th on the Jack Nicklaus course at St Mellion which was home to the Benson and Hedges International Open for several years. It is also possible to spot influences from Pinehurst and its relatively near neighbour, Gleneagles. The Old Course at Letham

The Old Course at Letham Grange is superb and within a couple of years of opening featured in Golf World's top 50 courses in the country. A remarkable feat.

All the more remarkable when you consider that it was designed not by an Alister MacKenzie, a Jack Nicklaus, a Tom Fazio or a Donald Steel. Letham Grange was designed by Ken Smith.

Now don't waste time searching through Golf Architect directories for his name or to discover where else carries the Ken Smith stamp. You won't find anything.

Ken was a potato farmer whose dream it was to transform a Victorian mansion into a luxury hotel and built his own golf course. He was no more than an enthusiastic amateur when it came to designing golf courses but he is obviously one of those people who is a natural. Someone who could probably juggle five balls while his little chums were still learning to catch, recite Rabbie Burns while everyone else was still chanting nursery rhymes and no doubt played to scratch within two weeks of taking up golf.

Letham Grange would defy anyone to mark it down as the work of anyone other than a seasoned professional.

"He actually went to America and visited the top golf courses, brought back ideas and put them all together at Letham Grange," said Gordon.

Not only that, Ken Smith was

also hands on when it came to the construction of the golf course working closely with the then Head Greenkeeper, Jim Grainger.

"The trees that were already on the Estate had been there for 300-400 years and they just happened to be in the right place for the holes which Ken had designed. He used what nature had provided," explained Gordon.

explained Gordon. There are only three or four holes on the Old Course which don't feature water to a greater or lesser degree with several requiring a carry over water to make the green.

The new Head Greenkeeper, David Mathie, only took over the reins at the beginning of April but there was no disguising the excitement he felt as he spoke a few days before starting work.

With the Old, and the slightly shorter but still impressive New Course, to manage David has already formulated his five year plan.

"I am going to go around the course hole by hole and assess what is required but I know that I'm going to do quite a bit of rebunkering to give the courses a bit more of a Scottish feel to them," said David, who arrived from Strathmore Golf Centre having previously worked in the the South East. He is a former student of Sparsholt College.

"I also intend to undertake a big conservation project planting 8 -10,000 trees and, working alongside Jonathan Smith, bring in conservation areas," explained David, who also promises some fine, quick greens for August and the National Tournament players.

Letham Grange now has new owners who are keen to give the resort a major lift. * TM of DowAgroSciences Always read the label. Use Pesticides Safely. Bastion T^{*} contains Fluroxypyr and Mecoprop-P. MAFF No. 06011 Greenor^a contains Fluroxypyr, Clopyralid and MCPA. MAFF No. 07848



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"There is so much to offer in this area," said Gordon. "As well as our own courses we are in easy reach of Rosemount, Carnoustie, Downfield, Montrose, Strathmore and Monifeith to name just a few while St Andrews is under an hour away.

"We are also sold out for the week of next year's Carnoustie Open Championship," he revealed.

One of the innovations brought in by the new owners have been the Stones of Good Fortune which are scattered strategically around the course and now feature in the Resort's logo.

"These were put down in 1996

and blessed by a Buddhist Priest, who was also the landscape architect," explained Gordon, who added that they were giving away little pieces of the stones and asking the recipients to pass on any tales of good fortune which had occurred since.

"Amazingly two weeks after they were blessed the Queen announced the return to Scotland of the Stone of Destiny, which had been in Arbroath Abbey for hundreds of years.

"In a small way we felt involved and some of the staff went to Edinburgh to watch the Stone come home. It's a nice tale."

Letham Grange has another unique feature in that it has the only curling rink in the world which boasts chandeliers for lighting.

ing. "This was another innovation from Ken Smith who built the four lane curling rink in the function suite. It goes down in October and stays until March and the chandeliers are a nice quirk."

That function suite can seat 500 people and it will be the venue for the banquet on the Tuesday of the National Tournament.

"We feel that Letham Grange is a

haven of peace for our visitors - an ideal place to unwind." said Gordon.

You can't but agree and the opportunity to pit your wits against the Course that Ken Built and enjoy everything that Letham Grange has to offer is one not to be missed.



Grange

FACTFILE

Letham Grange is 4 miles from Arbroath Arbroath is 8 miles from Carnoustie Arbroath is 17 miles from Dundee Arbroath is 40 miles from Perth Arbroath is 70 miles from Edinburgh Arbroath is 98 miles from Glasgow Arbroath is 250 miles from York Arbroath is 350 miles from Birmingham Arbroath is 450 miles from London Think Arbroath and for many what immediately comes to mind is the Arbroath Smokie - the delicious smoked fish which is cured in smoke-houses close to Arbroath Harbour.

A few miles away in Forfar they also lay claim to their own delicacy - the Forfar Bridie - a magnificent cross between a pie and a pastie.

Arbroath has a fine football team which plies its trade in the Scottish Third Division. What it is famous for, however, is having the coldest ground in Britain. Visit Gayfield Park and freeze!

The Declaration of Arbroath proclaiming Scotland's independence was signed in Arbroath Abbey in 1320 and the Stone of Destiny was housed in the Abbey for hundreds of years before being taken to London. It is now back in Scotland, in Edinburgh Castle.

Dundee is the nearest city to Letham Grange and can offer a wide range of attractions. Originally known as the City of the three Js - Jam, Jute and Journalism it is now the City of Discovery as it is home to Captain Scott's famous ship upon which he made his first polar expedition, and is also the birthplace of Dennis the Menace and Desperate Dan! It also has Shaw's Dundee Sweet Factory, Camperdown Park with its Wildlife Centre and the superb Olympia Leisure Centre complete with five waterslides, waves and spa pool.

waterslides, waves and spa pool. Glamis Castle, childhood home of the Queen Mother, is only a few miles from Letham Grange and is open to the public.

More Information can be obtained from Arbroath Tourist Information Centre Tel: 01241 872609 Fax: 01241 878550 or the Angus & Dundee Tourist Board Tel: 01382 434664 Fax: 01382 434665 E-mail: arbroath@sol.co.uk Website: http://www.angusanddundee.co.uk

Anyone who wishes to stay at the wonderful Letham Grange Hotel to be on hand for all the activities of the National Tournament, in association with Scotts/ Miracle should contact BIGGA Headquarters.

Angus and Dundee Tourist Board Advance Booking number for all types of other accommodation in the area is 01382 434664.



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Rhône-Poulenc Amenity, Fyfield Road, Ongar, Essex CM5 OHW. Telephone 01277 301115 Fax 01277 301119. SUPER MOSSTOX CONTAINS DICHLOROPHEN. MÖSSTOX IS A REGISTERED TRADEMARK OF RHÔNE-POULENC AGRICULTURE LTD. ALWAYS READ THE LABEL : USE PESTICIDES SAFELY. (MAFF 05339) © RHÔNE-POULENC AGRICULTURE LTD 1998. Golf Course grasses are required to face up to much greater demands than ever but, as Gerard van 't Klooster explains, breeders are trying to keep ahead of the game...

Ta

Grasses have been used for different sports for a long time but now we ask more from grasses than in the past. On golf courses, we want to play all year round (summer and round (summer and winter) and clubs have more members than in the past. When you see the number of rounds played on a golf course during a year, it is much more than 20 years ago and it should be to nobody's surprise that grasses are likely to be worn out.

are likely to be worn out. New golf courses are being built differently from the older generation. The mowing height of the greens, fairways and even the roughs are also completely different. Some fairways nowadays are being maintained to the same standard that greens were in the past. For a grass breeder all these new types of man-agement are important to know what specie and/or variety can be used.

Strain the strain

A grass breeder starts with a collection of ecotypes gathered from nature which he crosses between varieties or a

crossing of a variety and an ectoype. This new material gives a lot of variation and it is in the hands of the breeder to select for the best material.

The first selection is done in a turf trial with small plots, mowed as with a lawn - sometimes mowed as a golf green. In these plots the breeder can see what is the best material and in the trials they are always check existing varieties, so the breeder can assess whether the new material is better than the exiting varieties. This process takes three to four years.

If the new material proves to be better, then it will be selected and the breeder will try to make a new variety from the best material.

For plant breeder rights (by law) a new group of plants is a potential variety only when the group of plants is new and does not look too similar to an existing variety.

The group of plants must also contain plants with the same growth habit and, last but not least, the next generation of that new group must show the same aspects and qualities as the first generation. We call this stability of the variety.

At this stage the grass breeder will try to make a combination of the best parent plants between these borderlines. This takes another, year.

The first seed of a "new" variety will be used for different trials in different countries. At Barenbrug, we want to see where we can use the variety and what is the value of the variety for the greenkeeper in the different climatic zones.

The material (plants) have to deal with dry summers, wet summers, cold winters etc. In the meantime we will also test on seed yield.

For the end user (greenkeeper) it

is important to know that he can buy the variety. The seed company will only start with a variety if it produces enough seed to market it either in some or all-climatic zones.

After three years of testing on our research stations we will produce seed for the first multiplication of a variety. This seed will be used for the official application (STRI and other institutes), storage (Bank of England) of the variety and to start the next multiplication for selling. All the testing and trialing at the STRI etc. will take at least five years, after that time we are able to market the varieties.

All in all, from the beginning until the end it takes about 13-15 years to create a new variety. As it takes a long time the breeders must look into the future and be flexible enough to change some parts of the programmes when there is a demand for new varieties/species as a result of all the environmental changes. I think it must be possible

takes the with rough

Whatever their sport, players deserve a surface that can absorb all they dish out and bounce back for the next fixture. From rugby pitches to golf courses, Johnsons' grass playing surfaces can cope with the best of British sport – and the worst of British weather. Our range of seeds gives you all the benefits of one and a half centuries of breeding. So when you want to bring new life, strength and disease resistance back to your playing surface, Johnsons will deliver the goods, season after season. We supply Wembley's "hallowed turf" and are one of Britain's



Gerard Van 't Klooster, Head of the Research Station, at Barenbrug Wolfheze in Holland.

to use other grass species too when they are more suitable for some projects.

On a golf course we use mixtures from different species and within the species we use different varieties. For some demands (heavy traffic, under shade) it may be better to start the mixture with other more, suitable species.

On the newer golf courses, the tees are often positioned in wooded (shaded) areas. The new tees are often small, therefore, it is difficult for the grass to recover.

In this situation it could be a solution to use a completely "new" species as Deschampsia ceaspitosa (turfed hairgrass). Some new varieties of this species have proved themselves to be excellent varieties under traffic in the shade. The new varieties tolerate short mowing cutting down to 9 mm, so this can be the solution for the future on golf courses.

Another "new" species is the crest-

ed hairgrass (Koeleria macrantha). This species is excellent under more intensive and also extensive situations. It will stay green with less irrigation, it stays green with less fertiliser and the specie tolerates close mowing down to 8 mm. It could be the grass for roughs too, due to its nice flowering habit. When you see this grass flower, you are sure to become enthusiastic about it.

Alongside the new developments, we continue to improve on our exiting fescue portfolio like Barcrown, Bargreen and Baroxi and the Browntop bents like Heriot and Bardot. Both species (fescues and bents) are still providing the best playing surfaces for golf courses.

In the future it will be more difficult for the greenkeeper to spray chemicals, so as a grass breeder, we have to find the best combinations of resistances for diseases. For a long time we have been working on the resistance for Red Thread, Snowmold, but now you see different diseases such as Dollar Spot, Take All, Pythium etc.

In our laboratory we have some tests to look for resistance in breeding material. Because of the difference between the diseases, it will take a lot of breeding work to get the new "resistant for all diseases" variety. However, while we use mixtures of different species, the risk of using a mixture with good varieties is much smaller than to use the cheap unknown mixture.

The irrigation will be a problem in the future too. Not only the amount of water, but also the quality of the water. For a breeder, it is the case to look for the best variety for growing in less optimal conditions.

Nevertheless when a new golf course is in construction the most attention goes to the clubhouse and the ball washing machines. It is of great importance that the constructor takes more attention to the best grass mixtures.

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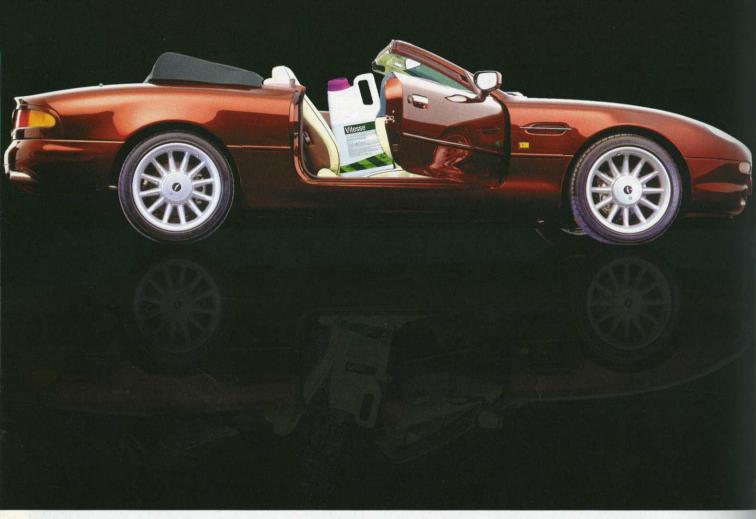


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Viscount Whitelaw to relinquish BIGGA presidency



Viscount Whitelaw pictured here at a BIGGA award ceremony last year

It was in January 1988 that the BIGGA Board of Management invited Viscount Whitelaw to become the Association's first President. Ten years on and with the approach of his 80th birthday Viscount Whitelaw has advised the Chairman and Executive Director of his wish to step down from his position in favour of a younger person.

Commenting on the President's decision, Neil Thomas said, "Following a recent meeting with Viscount Whitelaw, the Chairman and myself fully understand and respect his wishes and the Board of Management has reluctantly accepted his resignation.

"His contribution to BIGGA in the past decade has been outstanding. His empathy with the greenkeeping profession and his support for greenkeepers has greatly benefited both BIGGA and individual members."

First Honorary Member

BIGGA's constitution enables the BIGGA Board of Management to recognise as an Honorary Member any person deemed to have contributed in an outstanding manner to the Association or the profession.

"I am delighted to announce the

Board's decision to award the first Honorary Membership in the Association's history to Viscount Whitelaw," said Neil Thomas.

"It is richly deserved and we all join in sending our very best wishes for the future to both Viscount and Lady Whitelaw," he added.

Club Captains Asked for Donations

Every golf club Captain in the country has been circulated with a letter from BIGGA President Viscount Whitelaw asking him to request his committee to make a donation to the Association's Building Fund.

In the letter Viscount Whitelaw writes...

"As I prepare to step down from the presidency of the Association, I take great pleasure in the knowledge that the construction of BIGGA's new headquarters building will be completed later this year. This will most surely mark another step forward for BIGGA and its members who will be able to take advantage of the modern training facilities within the building. At present the Association is actively raising funds towards the cost of the building and I write to ask if you would kindly request your committee to consider making a donation to BIGGA's Building Fund in recognition of all that BIGGA has done to enhance the profession of greenkeeping in the last ten years and which in turn has led to the great improvements in golf course management and maintenance which so many golf club members enjoy today.

"Donations should be forwarded



to BIGGA headquarters and will be acknowledged on a Roll of Honour within the new building. For donations of £250 and upwards, BIGGA

will additionally recognise such donations through the presentation of plaques."

BIGGA's Chairman Gordon Child said, "It is hoped that a positive response from the country's golf clubs to Viscount Whitelaw's letter will help to ensure that the Association's financial commitments brought about by the need to build a new Headquarters are reduced."



All donations were served as a server of the server of the



George Barr with Ham Manor Captain Graham Holton and Greens Chairman Don Brewer MBE

First Golf Club Donation from Ham Manor

Ham Manor Golf Club in Sussex has become the first golf club in the country to contribute towards the building of BIGGA's new Headquarters and Training facility with a donation of £500.

Club Captain, Graham Holton, and Chairman of Green, Don Brewer MBE, together with Course Manager and BIGGA Board of Management member, George Barr, spoke with Greenkeeper International Editor, Scott MacCallum, about their reasons for making such a generous donation. What was it that persuaded Ham Manor to donate money to BIGGA's Building Fund?

Graham: When George first mentioned it I didn't really hesitate and when I suggested it to the Council of Management the agreement was unanimous. Each member had obviously come to the same conclusion that this was useful and that the club should put something back into greenkeeping in a small way.

Don: The fact that it will help towards the training and professional development of greenkeepers was the thing which sold the idea to me. It is not much use having a wonderful course but not then training the people to maintain it properly. If BIGGA is the organisation which is going to do this then I believe it is down to the clubs to put something into it. It is only going to come back to us in the end anyway.

What have been your perceptions of BIGGA as an organisation?

Graham: We knew a little about BIGGA but not very much and, I would hesitate to say it, but I would think that 70% of our members don't know anything about BIGGA at all. The other side of the coin is that without doubt it is the greenkeepers who are THE most important element of a golf club.

Don: Having said that the majority of members don't think there is any training involved - the greenkeeper just sits on a tractor and cuts grass. I don't believe that the average club member really knows that BIGGA exists.

Have you noticed any discernible improvement in course quality in the last 10 years?

Don: From our point of view greenkeepers have become more knowledgeable about what they are trying to do. In the past greenkeepers tended to be doers rather than thinkers but nowadays they think more about their job and that is down to the training which ha become available to them. Graham: What has perhaps transformed greenkeeping has been the tremendous advances made by the manufacturers of greenkeeping equipment which has enabled greenkeepers to do their job better. Of course the greenkeeper has to have the ability and knowledge to operate this much more sophisticated equipment. It must also be encouraging to green staff to see that golf clubs are buying this machinery to make their job easier.

Of course, maintenance is a lot more intensive because there is so much more play than in previous years.

George: In the ten years I've been here the increase in the amount of golf played has been huge. When I first arrived no-one teed off between 9am and 11am and then a few more after that. Now it is virtually all day. Ten years ago trolleys came off in November and went back on in March, now they are on all year round and maintenance has had to come up with the systems to allow people to play a lot longer.

Don: Members just don't appreciate that. There is no argument that golf courses are taking a much greater bashing than they ever have.

Graham: Some members are up here seven days a week which gives them good value for their membership. It does wear the course out but they expect it to be in apple pie order no matter the conditions.

Do you feel that golf supports greenkeeper education as much as it should?

Graham: I do believe that more should be done and I would like to see it because, as I've already said, the golf course is the most important thing in the golf club. The better a person is trained the better he can do his job whether he be a banker, a bus driver or a greenkeep-

eorge: I don't believe the golf aubs know how much the training

costs. My Deputy recently went on a BIGGA training course and the club paid £75. The realistic value of that two day course was around £600 so the club is getting a very good deal. When I explained to the club just how little of the Golf Union levy came back into greenkeeper training I think everyone was surprised and shocked by that. We are talking pennies and I believe every member of this club would sacrifice 50p per head if they thought it would help the golf course.

Don: If you took 50p from each golf club member would you have far more than you needed?

George: Oh yes. That would be an astronomical sum of money and would enable every greenkeeper in the country to be trained to a minimum standard.

Ham Manor is obviously a far thinking golf club what else does it do for the good of the game?

Graham: We have a junior programme to provide money to assist in the development of the game as I believe that if the game is to prosper we must nurture our new and young players.

Thank you very much on behalf of the Association for the kind donation.

Graham: Our one desire at Ham Manor is that we may have provided an incentive for other golf clubs to follow our lead in donating to BIGGA's Building Fund. If there is one criticism of BIGGA it is that you don't promote yourselves enough but I think that this scheme will help to spread the word about BIGGA and what the Association does. I also think you should give yourselves credit for the wonderful job you do.

To date, the Buy a Brick Raffle, which will be drawn at BIGGA's annual golf day in June, has raised £6,600 while donations to the Building Fund stand at £10,259

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Keeping in touch with news and comment from the Sections



The Scottish National Golf Tournament

The Scottish National Golf Tournament will be held at West Kilbride Golf Club, Ayrshire, on June 23, 1998 by kind permission of the Captain and Committee.

The cost for the day will be £16 which includes coffee/tea, filled rolls and an evening meal. Entry forms can be obtained from the Regional Administrator, Peter J. Boyd, 10 Meadowburn Avenue, Newton Mearns, Glasgow G77 6TA.

Closing date is Monday, June 15, 1998. Cheques must accompany the entry form and must be made payable to the BIGGA Scottish Region. Peter Boyd

North

A couple of new members to welcome to the Section this month. Graham Scott from Brora - although unfortunately no longer employed by Brora GC, but that's another story! and Mark Angus, from Newmacher. We wish them both well and hope to see them at Section events.

Retiring this month is John Mowat after 32 years working at Reay GC in Caithness. John intends to spend his extra time gardening and golfing, the latter which will take him back on to the golf course he has just left! Enjoy your retirement John, anyone who has worked on a golf course and with committees for 32 years deserves it.

The Scottish Conference was as

good as ever and it was great to see a good turnout from North members. George Brown was the star turn as usual and the overall standard of speakers was excellent. I hope we in the North can produce as good a day at our Conference this coming November.

Next month we have the Scottish Regional final of the Ritefeed Tournament at Royal Dornoch. The three qualifiers from each Section are as follows: Class 1 Scott Williams, Peterculter; John Taylor, retired; and Michael Keay, Montrose. Class 2 David Marnoch, Peterculter; Gordon Mckie, St Andrews; and Sean Jaffray, Ellon. Class 3 George Aitken, Peterculter; Hugh McLatchie, Peterhead; and George Asher, Kemnay. Apologies to Phillip Don, Kemnay, John Morton, Alford and Dougal Duguid, Westhill, who each finished 4th, normally good enough to qualify, but this year only three qualifiers from each Section were allowed as this is the format for the finals. These three are, of course, first reserves so may yet get in.

I hope to see some new faces along with the familiar ones at Fortrose this month. The Committee will be selling "bricks" in the shape of raffle tickets to raise funds to build the Association's new offices. This is your chance to help the future of our Association so please give generously and, besides, you might win a prize in the process! Iain Macleod

Central

Has the bubble burst? I have no new members to welcome to the Section this month, which is a disappointment after having 18 last time. Never mind, you committee has faith in you to rectify the situation in time for next month's magazine. There must be a number of greenkeepers in your area who are missing out on the benefits on offer from being a member of the association. If you don't feel like approaching them yourself, Regional Administrator, Peter Boyd, will only be too happy to pay them a visit. Either give Peter a call or drop me a line and I will pass the information on to him.

The recent visit to Stewart & Co's premises at Dalkeith proved to be another enjoyable and informative day for everyone who attended. Our sincere thanks go to Graeme Forbes, Alan Miller and Peter Campbell for taking the time to organise and conduct the visit, provide their usual first class refreshments and also for the support which they give to the association throughout the year.

During the past few weeks I have attended several events which were not organised by the Section/Region and it was surprising how many members, who never attend any of our events, were there. Why is this? Are we choosing the wrong subjects, venues or time of the day? If you have any thoughts on this, please let me know and we will try and give you what you want (within reason!)

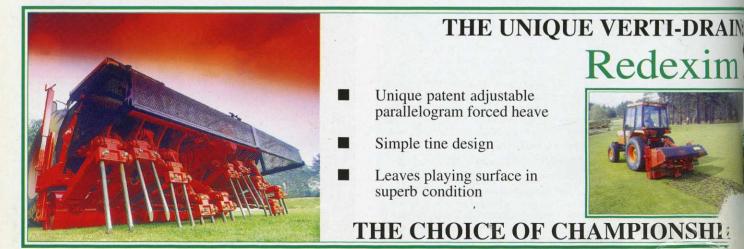
It was pleasing to read in the West Section's report last month that John Robb is still attending their events, John was Head Greenkeeper at Aberdour Golf Club for many years (he was my boss when I stated in greenkeeping, xx years ago!) before he moved back through to the west. I hope everything is going well with you and your family John, and send kind regards from all your "old" friends in the Central Section. As everyone will be busy maintaining their course and trying to organise holidays to fit in with the ever increasing fixture lists, few section events, if any, will be organised over the next two or three months but no doubt you will be all "champing at the bit" waiting on news of what has been organised and your entry form for the Autumn Tournament to drop through your letter box. If we keep getting through events as quick as that I will be wishing you all a New Year shortly! John Crawford

West

Firstly, may I say sorry to those members recently joined for omitting them from last month's issue of the magazine. The new members are John Garloch, Keith Maclean, both Haggs Castle; Stuart Jackson, Dunbarton Golf Club; James Gilchrist, Hamilton; Russell Abernethy, David Shearer, Edward Gibson, Phil MacFarlane, all from Williamwood; Alistair Read, Student member; Barry Brown, Douglas Park; Tommy Nisbet, Glasgow; John Cowan, Palacerigg Golf Club; Frank McGarvie, Linn Park. Welcome to you all on behalf of the Association and I hope you come along to organised days or events and enjoy yourself.

What has happened recently then, firstly the Nature Conservation and Education talk at Hilton Park organised through the SGU and GTC. Although I was not present the night appeared to be successful, with a full house in attendance.

Next the SGM day at Gleneagles then, SGM House Inverkeithing, where 32 people attended a very enjoyable and informative day. Although James Kidd was unable to





Keeping in touch with news and comment from the Sections

give a presentation his administrative assistant gave a very interesting talk, thanks also to the Monarch's Head Greenkeeper for his compering on the conducted tour of the Gleneagles facilities. Thanks to Stuart Green and Robert Heath respectively for enlightening into what really goes on at one of our five star facilities. It give all of us food for thought, and something to aim for. After that delightful tour, off to SGM House for an inspection of the premises, a talk on the development of Scottish Grass Machinery as a Company, then a demonstration of equipment by Lang and Nedernan. I found the whole day very entertaining and the new set up at SGM House will go a long way to meeting the requirements of their future goals. Thank you to David McInroy and all his staff for the day.

Finally, the Head Greenkeepers/ Conveners Day sponsored by Aitkens and Scottish Grass Machinery at East Kilbride. A delightful day was enjoyed by 16 teams from all quarters of the Section - again nice to see some new faces and some old friends. Well done the winners, Cawder, with Balmore as good runners up. Thanks are due to Aitkens Scottish and Grass Machinery for their combined support of the Section and this event, helping to bring committees and greenkeepers together creating greater understanding of our situations. Thanks to Brian Bolland and the green staff for his course preparation also to Drew Adams and the house staff for the excellent meal. At the last moment Tony Merrill the Club Captain was asked to say a few words, sorry for the surprise and I hope you enjoyed the day. May I also say a big thank you to my committee for their

ITS EFFECT IS SHATTERING

efforts on the day organising the event. Last, but not least, the members are to be given a mention for allowing the Association courtesy of the course.

The least mention for this month is on a very sad note conveying the death of a great past member of the Association and industry. Ian Fraser, ex Rothesay, Hayston, Sandyhills and Cathkin Braes passed away on March 28. The Section's condolences go to Elsie and her four daughters at this very sad time. For my own part it is sad to hear of the passing of a man I worked with for four years and learned an awful lot from the managing a golf course. He was a credit to his profession and I will remember him as a great mentor. Ian was a Past Chairman and Secretary of SIGGA and will be remembered by many.

Stuart Taylor

East

Sorry there was no report last month but it is the time of the year when there is not a lot of news to write about but we have a bit for you this month.

If anyone has any information that I may have missed drop me a line or call me on the usual address or phone numbers, I would like to hear from some of our Section members a bit more this year.

In March we had an open discussion forum on the 19th at Oatridge College, and the members who were in attendance thoroughly enjoyed the day, so we would say it was a total success

We would like to thank our Chairman for the day, Graham Forbes, Managing Director of Stewarts & Company, who did a great job, also our guest speakers, Paul Myrscough, Symbio, who gave a good talk and answered some very good questions from the body of the hall. Dr Ian Young, Research Soil Scientist, who also gave a very informative talk that kept everyone interested. Throughout his time at the stand he also answered all the questions that were put to him. We would also oke to thank Oatridge College for the facilities they provided which were excellent and we will hope to use them again in the future.

Going back to the speakers, they were delighted to be able to come to speak to us and also with the questions they were asked and they would like to come back to speak to us sometime in the future. Look out for more days like this as we are looking to stage more of these types of forums over the coming year. Details will be in the magazine also the fixture list as soon as we agree on dates and get our fixture card printed out and sent out to our members (watch this space). In early March we had the annual Scottish Conference which was a great success with some good speakers and a big turnout of members off all sections. Thanks to the organisers, Peter Boyd, Regional Administrator, Elliot & Edna Small, the two Chairmen for the day Alistair McLaren, Education Officer, in the morning and Jimmy Neilson, Chairman of the Scottish Region, in the afternoon who both kept the day running along smoothly. The speaker each gave a talk on various subjects and answered all the questions afterwards. Also thanks to Dunfermline College for the facilities which were great. It was also nice to welcome our new National Chairman to Scotland, Gordon Child, who attended the conference. We hope you enjoyed your day and you are wel-come back any time. If I missed thanking anyone let me know. PS Also our patrons who attended and had stands on show on the day.

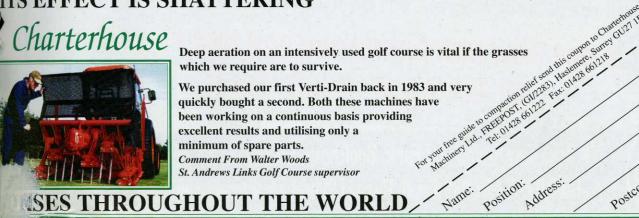
Next on the agenda for the section is the Spring outing, Ritefeed Classic 2nd Qualifier, at Royal Musselburgh Golf Club. The report and results will be in next month's magazine. So hopefully we shall have some good weather for the first major of the season. The new fixture list should be available soon so look out for them with all the seasons events for 1998.

Well, that's all for this month, don't forget if you have any info about anything that would be of interest to our members let me know as soon as pos-sible and we will get it into print. Next month I will have a list of all our new members who have joined in 1998. If you have not re-joined yet hurry up as you are missing out on all the benefits of membership of BIGGA. If you are a member and you know of someone that is not explain what they would get out of being a member of the Association. We in the East would like to take our membership total through the 200 barrier, as we are only 20+ short of this target. If every club got one more member we would top this number.

More news and views next month. Chris Yeaman

Ayrshire

Thanks to Chairman, Jim Paton, for my introdution last month, I will endevour to forward news, information and any points of view in this column throughout the coming months. Congratulations go to George Brown, Turnberry, on his appoint-ment as Gordon Child's Vice ment as



May 1998 Greenkeeper International 37

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Keeping in touch with news and comment from the Sections

Chairman. I'm sure the whole section will be a worthy and respected Chairman of our Association when his time comes.

The Section waves Bon Voyage to Bob McKay who returns to his native land and the the postion of Head Greenkeeper at Royal Dornoch. Replacing Bob in the vacated Head Greenkeepers seat at Prestwick St Nicholas is John McLauchlan who moves up from Brunston Castle. Also on the move to Prestwick is an old college mate of mine from the hazy days at Woodburn House, Stephen Frazer, who takes up the Head Greenkeepers position at St Cuthberts which has resulted with his First Assistant, Paul McMair, being promoted to Head Greenkeeper at Caldwell. Best wishes to all with their new jobs. it was nice to see Robert the Bruce

well on the road to recovery at our recent committee meeting. He insists his football career is over but on a return from the gents he was striding out rather well without his walking stick.Super medicine that Calder's liquid Robert. Never say never!

By the time you read this hopefully we will have had an enjoyable and suc-cessful spring outing at Stranraer Golf Club. If you have missed out make sure you don't miss the next event. I will keep this notice board posted. It's the ideal way to meet new and old friends, keep in touch with greenkeeping and support your Section into the bargain because with the loss of the Section's subscription's percentage we need it more than ever.

Any information please call me on 01505 683279 (home/evenings) or 0498 634122 (mobile).

See you next month.

Ian Barr



North East

Since I asked for news from any golf club a couple of months ago response has been very poor, only one member has phoned me. If the members want Section news let's hear from you.

Steve Cram and Robert Bell, of Slaley Hall, have been doing bunker construction on the following holes: 1st, 2nd 7th and 16th holes in readi-ness for the Compaq European Competition in June.

The new course at Slaley will be open for play in Spring 1999, hope-fully it will be open for members only in September for a short while.

Various members have asked me to thank Rickerbys for taking them down to Ransomes factory at Ipswich. I hope all went well for those lucky persons perhaps in the future more people will get the chance of a visit.

On March 4 we had our first winter lecture at Whickham Golf Club. Rickerbys of Hexham were the visitors giving us a slide show on their range of Kubota tractors followed by a meal.

Our thanks to Roger Stewart and his associates for giving us time and providing the buffet. This was much appreciated by all who attended. The Carburol Trophy this year will

be played in a different format, instead of foursome it has now changed to 4 ball better ball.

Entries can be sent to David Cuthbertson tel: 01207 233474 the closing date is the 23 April the same day as the spring comp. Good luck to all entrants.

Congratulations to Steve Arnott on his recent appointment as Head Greenkeeper at Stocksfield GC also to Graig Kilgour moved from Hexham to Ponteland GC as Deputy Head Greenkeeper.

The second winter event was held recently at Prudhoe GC this again was well attended our thanks go to Terry Charlton, of Turf Care, for arranging the speakers and for providing the buffet and the raffle prize.

A special thanks to Tony McIure, of Whickham GC, for arranging both of

these events, bear in mind they do not just appear, a lot of hard work has been going on by Tony in the past few weeks. I expect that members will support Tony and the section in winter months by attending any events. All members will be notified when they are arranged. Jimmy Richardson

Northern

The recent Annual Dinner Dance held at Bradford Golf Club was another excellent function although a little thin on the ground in comparison to last year's mamoth turnout. Thanks to Dave Thackray and Mel Guy for their help in arranging the event. If anyone is needing a group of people to liven up a party, please contact Mike Brear and his barmy followers. They really know how to enjoy themselves.

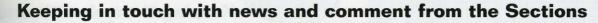
Another dinner dance has been arranged at Northcliffe Golf Club on July 4 this year. Anyone interested in going please contact Ken Christie on 01274 405596 for further details.

I have been informed that a surprise birthday party was held for Phil Dickerson, of Shipley Golf Club. Apparently the "surprise" included a stripper. A belated happy birthday Phil and I hope your glutus maximus is back to normal is back to normal!

Finally, we have two new greenkeepers which have joined the Section



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from Crow Nest Golf Club near Brighouse. They are Jonny Platt and Graham Blackburn. Hope you can attend some of this year's events.

Anyone with any news from within the section please contact me on 01484 317813 or 0411 601420. Simon Heppenstall

Cleveland

Firstly, my name is Kevin Heslop, Head Greenkeeper at Brancepeth Castle Golf Club and I have taken over the Section newsletter from Bruce Burnell, who has for many years kept us well up-to-date with news and who will be a very hard act to follow.

TheSection now has a new Secretary, Robert Lawton, Course Manager at Billingham Golf Club. We wish Bob all the very best in this post. Our Chairman is George Malcolm, I will list the committee members in the next newsletter.

We had our AGM on March 12 at Darlington Golf Club where all our lectures will take place. The AGM was attended by 26 members of the Section; the Chairman thanked the retiring Secretary, Garry Munro for four years dedicated service.

We have had two very good lectures this month. The meeting on March 5 was Robert Laycock, Turf Agronomist, who gave an interesting talk with slides. He advises not only soil analysis but samples from the turf tissue.

The second talk was on March 12. This was on Trimmers Computer systems. The speaker was Fred Robinson. This proved a very interesting talk with lots of questions coming from the floor.

Next it's congratulations to Chris Powley, First Assistant Greenkeeper at Dinsdale GC who will be marrying Kerry at Darlington on May 8, followed by a honeymoon in Florida.

We also have two new members, David Bird and Mark Chapman, both from Durham City Golf Club.

Our Spring tournament is to be held at Eaglescliffe Golf Club on May 6. Times etc will be in Section Newsletter.

Last but not least, dress code rule is jacket and tie at evening lectures and meals after golf days. Please try and remember this.

Kevin Heslop

Sheffield

On March 5 we held our final winter lecture at Rotherham Golf Club. I would like to thank Rotherham for letting us use their facilities once again this winter, it is very much appreciated by us all.

The lecture was given by Terry Ryan, Marketing Director of Rolawn. Our thanks go to Terry who gave a very interesting lecture on Turflands and washed Turf which was enjoyed by everyone present.

Our lectures this winter have been very well attended by our members averaging around 50, but I'm sure there room for a few more next winter!

Congratulations to Ron Ullathorne who won a prize in a BIGGA Competition at Harrogate and Ron won a pair of Hi-Tech golf shoes, I'm sure they will get plenty of use Ron!

Our next golf will be our summer competition at Worksop Golf Club on July.

John Lax

North Wales

Firstly, I would like to welcome new members to our Section, they are: John Morris, Francis Cripps, Ken Williams and Phillip Davies, all of Rhuddlan; Owain Aerow, Porthmadog; David Booker and Stephen Edwards, Baron Hill; Daniel Fitzgerald, Easthan Lodge, David Coates, Eaton Golf Club; Neil Saunders, Heswall; and finally Lee Morgan and Mark Roberts, of Woolton. Welcome on board I hope to meet you at any of our events.

Emyr Price starts his 25th year at Royal St Davids, congratulations, now that must be job satisfaction.

I recently went on one of the short courses on Machine Maintenance at Northop College they were held over four weeks on Mondays in February, I thought they were excellent, they included such things as ignition systems, clutch and brakes and cylinder grinding, with tuition in the morning and practical hands on in the afternoon and at £40 were brilliant value for money.

Around the green

I would like to thank Tim and Andy for the concise and totally understandable way in which the subjects were covered. So when the next series of courses are available make sure you're booked in. Remember you're never too old to learn.

Hey we even learnt how to get into a Vauxhall Belmont. Didn't we, Colin! Dave Goodridge



East Midlands

This year's Pair's competition was held at Kedleston Park on March 9. After the heavy rain of the previous week the weather was set fair for the day, with all members eagerly waiting for their turn to tee-off. The winning pair was home player, Dave Leatherland, and Adie Porter, Greetham Valley, with 37 points.

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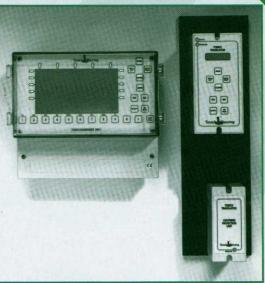
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Keeping in touch with news &

Second was Frank Kempster, Glen Gorse, and Carl Chamberlain, Scraptoft, 36 points, the evening finished with a very entertaining lecture by Craig Cook and Peter McEvoy on USGA Spec greens, for which the Section were most grateful.

I would like to thank Kedleston Park for allowing us courtesy of their great golf course, which was excellently presented by Dave Leatherland and his staff, also thanks should be extended to the Steward for a really great buffet. A special thank you should go to our sponsor for the day, Scotts UK Ltd.

Finally I would like to thank all those members who have supported the Buy a Brick Building Fund, the Section has supported this idea for our new Headquarters in a very generous way.

On a sad note I was extremely sorry to hear of the death of Chris James. Chris had been a very keen Trade Member of the Association for many years before becoming an Associate Member, after finishing work at Erringtons. Our condolences go to his wife and son David and to the rest of his family.

Brooksby College have again arranged a series of lectures for all greenkeepers. On May 21 the subject is Conservation on the golf course, by Sally Mowsley. The following week May 28 we visit Leicester City Football Club for a tour of the Filbert Street ground by Head Groundsman, Chris Parry. Both Lectures start at 7 pm and for further details you can contact Paul Greene at Brooksby College.

Antony Bindley

Midland

By the time you read this report our first tournament will be over and I hope everyone who took part enjoyed themselves and had a great time.

All the entries for the singles and doubles should all be in by this time. All the entries for the singles and doubles should all be in by this time and the entries for the summer tournament should be on the way as the cut off date is June 8. This tournament will be held at The Wrekin Golf Club on the July 9. There has not been a great deal of response to the proposed trip to Turnberry, so if you are interested please contact me on 01384 292396 or if you have any other news or information that I may be interested in.

Again we have had a good number of new members join the Section and they are as follows: Richard Molyneux, Alan Strange, Joseph Miller, James Pearson, James Rodgers, Matthew Axton, Anthony Hill, Nick Blackshaw, Mark Clewes, John Meers and Paul Dixon.

Johnathan Wood 01384 292396



London

They say charity begins at home and in this case it certainly did before travelling 6064 kilometres to Romania and back. Tony Dyke, Course Manager of Wyke Green Golf Club in West London, was one of a team of volunteers who drove lorry loads of clothes, toys and present out to orphanages and Children's Hospitals in aid of the Romanian Children's Appeal. The trip took ten days and Tony's share of the driving was 46 hours, while his co-driver, Len Jones took the wheel for 48 hours. Three lorries and seven good guys delivered 44 tonnes of greatly appreciated supplies. Tony would like to thank all the BIGGA Members and others whose generous donations helped to fund the trip.

trip. While still at Wyke Green we would like to wish Greenkeeper, Stewart Bedford all the best in his new job. After seven years at Wyke Green, Stewart has moved to Wentworth Golf Club to gain further experience. Congratulations to Gordon Arnott, Deputy Head Greenkeeper at Finchley Golf Club and his partner Donna, on the birth of their new baby daughter, Hope, born on 27 February 1998 at Barnet General Hospital and weighing in at 6lb 9oz. Mother and baby are doing well and Gordon can-

not stop smiling. Robert Phillips, of Sandy Lodge, and Rob Washbrook, of Hadley Wood, are members of The Shenley Carpet Bowls Club, who have won the Herts 1st Divison Team Championship, losing only one match all season. Rob Washbrook is not only County Secretary but reigning Eastern Counties Singles Champion and Herts Singles Champion for 1997, but is also through to the Herts Singles semi-finals this year after narrowly defeating, yes, his old mate, Rob Phillips in the quarter-finals.



comment from the Sections



Well done to Chas Gobie on his promotion to Head Greenkeeper at West Middlesex Golf Club. Having formerly worked at Hampstead Golf Club as Assistant to Alan Lewis, Chas took over the helm on 6 April 6when Bob Moffat steps down.

One of the stalwarts of the industry, Bob Moffat was born into greenkeeping in 1933, his father combining the jobs of Greenkeeper, Pro and Steward at Lanark Golf Club. His first job, aged 15 was on the staff at Sandy Hills Golf Club and there he joined the Scottish Golf Greenkeepers Association (SGGA). In time he became Secretary of the SGGA when then evolved into SIGGA, one of the forerunners of your organisation, with a Committee comprising of Bob, John Campbell, Head Greenkeeper of St Andrews, and Donald Harradine, a Golf Course Architect. He held the post of Secretary of the Association for 14 and a half years. During this period in the early '70s, Bob was one of the instigators of The City & Guilds Certificate, combining with Head Greenkeeper, Cecil George and the Principal of Woodburn House College in Glasgow, Charlie Crossan, to set up the first recoginsied training standard. In 1972, while attending the BGGA Dinner at Blackpool, Bob and Ransomes Sales Manager, John Wilson, decided to resurrect the Greenkeepers' International Golf Match which had been played up until the war. The following year in 1973, teams from eight countries competed, with Bob playing for the victori-ous Scottish Team. The Moffats moved south to England in 1976 and Bob was awarded Honorary Life Membership to SIGGA at the 1977 AGM. Continuing his support for young greenkeepers, Bob became an examiner for Practical Greenkeeping at College Green Burchetts in Maidenhead, casting his eagle eye over young fellows such as Kevin Munt, of the Bucks Golf Club, and Derek Mason, of Highgate Golf Club, when they were first starting out.

He was a founder member of the BB&O Section along with Bob Plain and Gordon Payne and was its first Chairman in 1977.

Bob has been Head Greenkeeper at West Middlesex Golf Club for seven and a half years, but now, after 50 years working in the trade has decided to take things a bit easier. I am sure all of us wish him and his wife good luck for the future.

Peter Hopkinson

Essex

Despite the FA Cup clash between West Ham v Arsenal, with the Minnows winning by a post, 47 people turned up for the March lecture given by Dr Alan Gange titled 'Biological Methods for Pest and Disease Control in Golf Turf". The subject gave for hot conversation with plenty of thought taken away for the future.

It was also nice to see so many new faces and old names on the night and let's hope it continues.

We would like to thank Dr Gange for giving up his time, our main sponsors Rigby Taylor, especially Dennis Smith and Steve Denton, Writtle College and the Caretaker for all his running around on the night and the following companies Avoncrop, Headland Amenity, Avoncrop, Headland Amenity, Willmot Pertwee, Kings, and Grass Roots Trading for supplying the raffle prizes.

Continuing on the education front, 11 Greenkeepers attended the first day of two Management Seminars at Stock Brook Manor with our lecturer Frank Newberry covering the following topics: Learning Styles, Time Manage-ment, Motivation, Leadership, Discipline Issues and Basics of Negotiation to say "NO". The second day will be held in

November, to give the 11 a chance to try between now and then to put the topics into practice, to give feedback and sort out any problems.

Anyone interested in attending one of these course, a second list has been formed, with 6 names already put forward. When we reach 12 the second course will run. For further information contact Martin Forrester 01245 603131.

Our next event is a golf competi-tion to be held at Channels Golf Club on June 2, price £18 Head Greenkeepers/Course Managers, Trade and Guests with £15 for Assistants and Trainees. Please telephone · Richard Pride 01268 752281 for entry.

We would like to take this opportunity to welcome our newest mem-ber Ian Mitchell from Thordon Park.

That's about it for now, see you at Channels, any queries please ring me on 01702 522202. Dave Wells - "Hammers for Europe"



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South West

May is now upon us and we can all wallow in the delights of summer. I hope this year's Augusta syndrome has not been too hard on you all and that you are now reaping the benefits of the winter and spring work.

It is more a case of looking forward this month as opposed to delving into the past. Hopefully you all will be reading this before the Greenkeeper/Amateur Tournament before the which this year is to be held at Woodlands Golf Club in Almondbury on May 13. I believe this is a first visit to Woodlands for the South West Greenkeepers Tour and so it promises to be a worthwhile one

We also have the annual match against the South West Secretaries coming up at Ilfracombe Golf Club. If you do want to play in that one then please put your name down with Peter Baynton and ensure that you will be available when the time comes. All the matches are a delight to play in and this year we can look

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forward to some witty after dinner anecdotes from our Captain, Matt Hawker, or in his absence some pure stand-up comedy from Captain of Vice Dave Bougen.

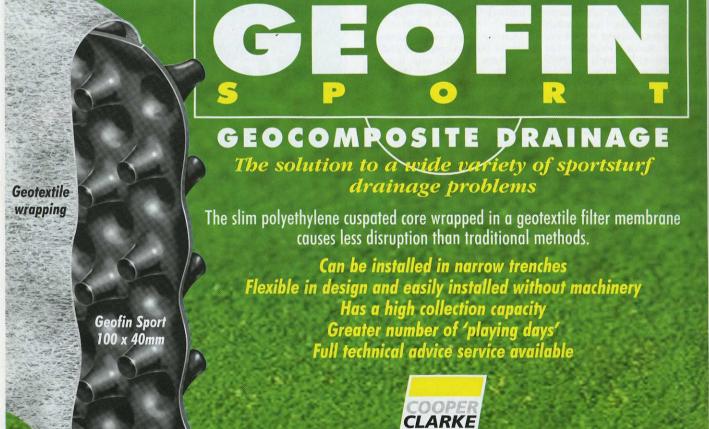
We have just run another first aid course and before that a chainsaw course. These courses always go very well and are extremely worthwhile, so if there is anyone out there who would like to attend these or any other courses then remember, just give me a ring and we will get you on the relevant list.

Available at this year's fixtures are badges for the building fund. If anyone would like to give a donation then it is £5 for a Bronze Badge, £25 for a Silver Badge and £50 for a Gold

Badge. See Peter for the details. If you have qualified for the Ritefeed Classic at St Mellion on the June 4 then here are a couple of tips for this fine course. Firstly, resist all temptations in the weeks leading up to the event and secondly, understand your water hazard rules. Marc Haring

South Coast

The last of our Winter Lecture meetings was held at Crane Valley Golf Club on Wednesday March 4. Unfortunately, Gary Parker from ISS Aqua Turf Systems Ltd could



Ad Ref 501

comment from the Sections

not make it. However, he sent along two of his team, Richard Parsons and David Driver. They both gave us an excellent insight into how ISS is coping with the reduction in the number of golf course being built. Richard started by talking about ISS and how they have branched out into Garden Irrigation Systems. There was a general discussion on how we can save water and the old old topic of overwatering. He then went on to talk about the various systems on offer. This was followed by a general discussion on these systems. Next, David Driver spoke to us about the new Contract and Renovation Service that is on offer. Once again a lot of questions and discussion. We had 30 members in attendance which was quite good. However, there were some empty seats. A few more of you would have been very welcome. On completion lunch was provided, courtesy of ISS Aqua Turf Systems Ltd. After lunch a number of the members had nine holes of golf. Some even managed to get round 18 holes. Our thanks to Garry Parker, Richard Parsons and David Driver for a very interesting and enjoyable day. Also thanks to Crane Valley for the courtesy of the course and the use of the clubhouse.

For all of you who have qualified for the Ritefeed Regional Final, I would like to wish you all the very best of luck. It is being held at St Mellion Golf Club on June 4. If for any reason you cannot make it please let Trevor Smith or our Regional Administrator, Paula Humphries, know in plenty of time. This will then enable us to organise a replacement.

Last, but not least, our secretary Jef Drake, as I'm sure you all know, is now the Deputy Course Manager at Newbury and Crookham Golf Club. His new address and telephone number is:

9 Villiers Walk, Wash Common, Newbury, Berks RG14 6SJ.

My apologies for not including Jef's new address in last month's magazine report.

Ken Lodge

Devon and Cornwall

The Section's Avoncrop meeting was held at Staddon Heights Golf Club on Tuesday, March 3, unfortunately the weather was awful with heavy rain and gale force winds, it was a credit to Head Greenkeeper, Johnathan Bullen, and his team, who some how had 11 holes open so our golfing members could get their fix for the day.They must have been mad! More than 25 members battled against the elements to compete for the Avoncrop Trophy. Even more amazing was that many of our non golfing members went for the customary course walk.

After a superb lunch our



President John Palfrey gave a short presentation on Avoncrop before presenting the golf prizes for the Avoncrop Trophy. 1. Tony James, Tehidy, +3; 2.

Buster Lewer, Dainton, -2; 3.

Brian Ridgeway, Fingle Glen, -2. Our afternoon educational talk rounded off the day, with Turf Consultant Robert Laycock presenting an excellent talk on grass leaf tissue analysis necessary or not. The Section would like to thank Robert for his superb presentation.

Also the Section would like to thank the day's sponsors Avoncrop for their continued support and to Staddon Heights and all their staff who made our day run so smoothly, with special thanks to Jonathan Bullen and his crew.

Richard Whyman



South East

Our Section's open workshop seminar on the March 31 was held at Cyril Johnston's, Carryduff, there was an excellent turnout at this event of over 80 people.

The speakers were as follows: Commencing with Richard Comely, of a Jacobsen/Iseki, who formally announced the take over of Ransomes by Jacobsen Textron inc followed by an informative discussion on the benefits of relief/spin grinding and a lecture on the operation and maintenance of hydrostatic systems.

Robin Blackford, of Hayter, guided us through the concept, design, manufacture, testing and marketing

of a new idea (eg) Mowers. Roy Allett, of Allett Mowers, gave us biography of his company from his grandfather through to the present day. D. Johnston presented us with two speakers from his company on the subjects of equipment hire, parts distribution and back

up. The BIGGA stand was well received and quite a number of application forms distributed.

Many thanks to all the speakers and those who made the effort to attend at the busy start of our season. Special thanks to Cyril Johnston Ltd for their hospitality. Jonathan McCabe



See you all next month!

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Charterhouse has grown from a company based on a single product to one which offers a full range...

1 A machinery Classification of the second s

There can be little argument that the praise the greenkeeping industry has received for its progress over the last 20 years is well deserved.

In that time the sophistication required to produce premier quality golf courses has grown to the stage that it bears comparison with the jump from the pioneering work of the Wright Brothers to the warp power of the Star Ship Enterprise. Identifying the key developments

¹ Identifying the key developments within those 20 years would obviously take in the formation of BIGGA in 1987 and the huge leap forwards in greenkeeping education, but on the machinery side there is one piece of equipment which could lay claim to being the most significant innovation over the last two decades. That is the vertidrain.

It was introduced into the UK in the early 80s by Charterhouse, a company which since then has been responsible for several other innovative pieces of equipment and grown to the extent that it now offers a product range exceeding 2,000 items. Charterhouse has also just become a BIGGA Golden Key

Supporter donating money to the Association's Education and Development Fund.

It is perhaps appropriate that the Haslemere-based company has become a Golden Key supporter because, as Chairman and Managing Director David Jenkins is quick to explain, much of the company's success is down to the improved education and status of the country's greenkeepers. "We have always recognised that the status of greenkeeping is absolutely vital as the products we sell enhance the golf course but it is imperative to understand agronomy and fine turf maintenance to recognise their importance," explained David, who added that Charterhouse's range covered compaction relief, overseeding, top dressing, scarifying and sweeping "These are all things which can be

"These are all things which can be perceived as a nuisance by the average golfer, who doesn't think much beyond the cutting of the green. We wanted the standing of the greenkeeper to improve because, around the early to mid 80s, we discovered that many greenkeepers could understand the benefits of the vertidrain but when they went to the Greens Committee it was a closed book.

"In a lot of cases that the local solicitor, accountant or JP couldn't possibly conceive that their own greenkeeper was also a professional so when he came to the committee proposing that the club buys a sophisticated piece of machinery, costing several thousands of pounds they merely applied their own thinking with no knowledge of agronomy whatsoever."

The Vertidrain was being produced by a Dutch company in the early 80s and when David, along with Philip Threadgold, the Sales Director, set up Charterhouse they took on the franchise in the UK.

"Initially we had to persuade people that a tractor could be driven onto a green with a vertidrain because prior to that greenkeepers didn't even want trolleys on certain parts of the fairway never mind the aprons or surrounds. We had to explain that the vertidrain was taking the compaction out as the tractor was being driven off the green."

The big breakthrough came when Jack McMillan, then at Sunningdale, hired one and used it on the worst piece of fairway he could find.

"He vertidrained about 50 yards and following a particularly dry summer one side of the fairway it was burnt up, the 50 yard stretch was still nice and green because the roots had gone down, and beyond that it was all burnt up again."

That experiment persuaded Jack to buy a vertidrain and he was followed by the Course Managers at some of the finest venues in the country.

"Jack is one of those characters who is so committed and enthused all the time and he was very dynamic in communicating the benefits of the vertidrain to others," recalled David.

"Somehow the vertidrain caught the mood of greenkeeping and we were very fortunate in that respect because, at the same time as we wanted to improve the status of the greenkeeper to help us sell, the leading personalities in greenkeeping were wanting to achieve the same thing."

Originally David and Philip had thought that only contractors would actually purchase vertidrains and then that perhaps the top ten or 20 golf clubs would buy but each year the level of golf club to purchase moved down. Now the market is virtually mature and most clubs have them.

"A club would perhaps hire one for two or three years then discover that the cost of leasing was not that different from hiring and it would enable the club to do the job when it suited rather than having to book the vertidrain two or three months ahead."



Above: David Jenkins and Below: Philip Threadgold





Having, as David is first to admit, been "Born of the Vertidrain" he and Philip took the view that Charterhouse shouldn't be a one product company.

"We are both technical people who enjoy being creative and because of the relationship we enjoyed with the greenkeepers we found that they would come to us with ideas.

"One said that he wanted a seeder which actually got the seed into the ground so when we came across a company, again in Holland, which made just such a thing we imported it into the UK and when they stopped making it they allowed us to produce it over here.

to produce it over here. "We also found people saying that they needed a top dresser which they could pull behind a tractor so we developed one of those. In fact, we've developed a



whole range of products all focussed on turf maintenance."

That is identified as the second thrust of Charterhouse in which it broadening out into supplying a range of products which complemented the vertidrain.

"We looked for several features which complemented the vertidrain. For instance the vertidrain is a long lasting machine so our machines had to be long lasting. We wanted original features in all our machines, just like the vertidrain, so we didn't get involved in making something unless we could see that there was originality in the new machine."

Charterhouse developed right through the 80s to the stage that when manufacturing became a problem because the whole of British industry was booming and no-one could be persuaded to make

the products the company bought a plot of land in Haslemere, moved from Godalming and built a new factory. Almost as soon as they had moved in, the recession hit, and hit hard.

"Like so many other companies we felt as though we were overstretched. So we went to Redexim, the Dutch company which had originally developed the vertidrain, who agreed to take an interest in Charterhouse which cushioned us through the difficult times."

Charterhouse has since moved away from manufacturing its own product line and contracted the work out to agricultural manufacturers.

"I met a lot of them when I was President of the Agricultural Engineers Association and they were both geared up for manufacturing on a bigger scale than us and because much of their work was seasonal they were able to offer us a facility outside of their own busy period," explained David.

It was around this time that Charterhouse moved into its third area of involvement.

"Knowing that recessions come in cycles it would be too much to expect that we would have steady growth without any downturns for the next 25 years. It is also easy for people to cross capital items off their budgets and particularly so for a golf club to not bother to buy a particular machine one year. If every golf club did the same it would create a real problem."

The answer was to increase Charterhouse's product portfolio and this they did to the tune of over 2,000 items. <u>"We talked to our French distrib</u>

"We talked to our French distributor, which ran a company supplying a whole host of sundry items, and said that now with the Channel Tunnel it was just as easy to transport goods from Paris to Glasgow as it was from Paris to Marseilles so why didn't we operate the catalogue in the UK. This is what we've done," said David, whose links with Holland have given him valuable experience of operating in an international market - "We now quote all our European and Scandinavian distributors in Dutch Gilders so the current high rate of the pound doesn't affect us."

The catalogue is circulated to every golf club in the UK each year

and all orders are administered in Haslemere, shipped out of Paris and delivered within three or four days.

"That completes the three main developments of Charterhouse first the Vertidrain, secondly our own machinery and thirdly our own consumable products." Last year the Anglo-Dutch part-

Last year the Anglo-Dutch partnership which had been so successful between Charterhouse and Redexim was reinforced when Redexim purchased the remaining Charterhouse shares.

"It made organisational sense because Philip and I now handle both our product lines in North America and Scandinavia respectively while the Dutch do the same in the Far East. It made a good fit and a very good use of our business acumen."

David now thinks "group" and sees the advantages of the new found size.

"I think we will grow to enhance our position of number one in the First Division, with the likes of Ransomes, Toro, John Deere, Jacobsen and Kubota in the Premier Division," said David who is quick to credit his staff and a top quality dealer network for the success the company has enjoyed.

On Golden Key, David reaffirms his believe that some of Charterhouse's success is down to an environment in which BIGGA's members are respected.

"BIGGA's progress has been very impressive and they occupy a key role in creating an environment in which their members become respected, and we felt that we should put something back into the industry. I see it as a long term partnership between ourselves and the Association." Naturally-occurring soil bacteria are now emerging as the unsung heroes of fine turf management. We go in search of more information by...

Research has revealed that promoting populations of certain organisms can enhance natural disease control and improve the texture and fertility of the soil.

ture and fertility of the soil. But with many existing chemical treatments working against, rather than in harmony, with these organisms, it is possible that applied chemicals can complement natural disease control.

In the case of the soil microflora or the population of micro-organisms within the soil - it is now recognised that manipulating these can produce a beneficial effect on the turf.

"Beneficial soil organisms can be broadly divided into two groups," said Geoff Yelland, of Rigby Taylor.

"Some bacteria are antagonists, either producing antibiotics which restrict fungus-causing diseases such as fusarium patch or competing aggressively with them for nutrients. Others assist in the breakdown of organic matter into



simpler forms more available to the plant.

"Bacteria which inhibit disease are of particular interest as many products on the market control the disease but also kill these bacteria, causing an imhalance in the soil's natural defences. This can reduce the efficacy of the product and sometimes cause visible damage to the grass."

But how do soil bacteria levels stack up in greens and on fine turf?

University research recently undertaken has shown that levels were, on average, 4000 times lower than those in natural grassland.

This raised a number of important questions, such as why, how could this be remedied, and how could healthy soil bacteria populations be maintained?

One reason for the low populations on golf courses in particular appears to be the specification of many modern greens. Sand constructed (USGA) greens seem to contain very few bacteria due to their sterile nature. This is also the case in compacted, poorly aerated and waterlogged areas.

Effective cultural practices boost bacterial populations by creating an environment which favours their development. Some greenkeepers and groundsmen have been attempting to enhance this through the surface application of products designed to promote the growth of soil bacteria. These tend to contain natural compounds and aim to provide conditions which favour the colonisation and growth of beneficial organisms, provided the soil



conditions are appropriate.

Fungicides are a valuable tool for the greenkeeper in turf disease management.

It is important that the use of these products has minimal adverse effects on desirable micro-organisms.

One of the manufacturers of turf fungicides to have researched the wider effects of its products on ecosystems is Dow AgroSciences. The company has conducted tests on Rimidin (fenarimol), its amenity fungicide, to assess its effects on soil bacteria.

Not surprisingly, the company has been keen to announce its findings that Rimidin is not harmful to soil bacteria. "We realise the benefits of soil bacteria and have been working on how to accommodate this with a continuing need to control fusarium on greens," says Dr Mike Drinkall from the company.

"The end result has been the development of a product which is very effective on fusarium, kind to the turf but also harmless to beneficial soil bacteria, which increase Rimidin's efficacy against disease."

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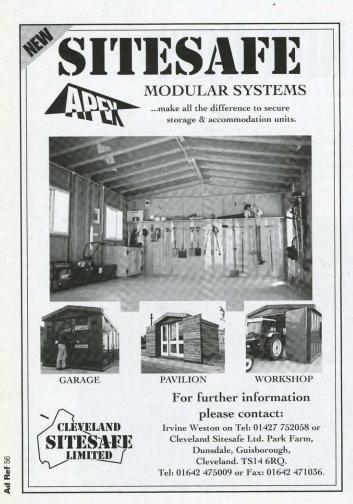
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Stories about theft and vandalism on golf courses abound. The problems vary according to the location of the course and its surrounds. Remote rural courses with few roads or footpaths within their bounds can expect few problems, nevertheless unless they are pre-pared they can expect a visit from the professional thief taking advantage of their quiet location to relieve them of equipment - kit which will probably be specially selected for its ability to be passed on readily - it is even suggested that some items may be selected because someone has asked for specific items. In other words equipment is stolen to order. In contrast the picture in urban areas is of a considerable amount of petty theft and vandalism - and a greater amount of disruption. Speaking to several clubs it is obvious that vandalism is considered a far worse problem, partly because it is on-going and needs constant vigilance and remedial action. Theft of equipment is usually covered by insurance although there may be restrictions and an excess which may increase with each instance of theft. There seems to be a very fatalistic view on this with many clubs taking few precautions to protect their possessions. Fairly regular losses of small items such as hover mowers and strimmers seem to be quite widespread, but there are reports of large items such as ride-on triples or tractors having gone missing. Because these larger items are so specialised it is more difficult to find a market for them

- and without a market there is little point in stealing them. Of course larger items are also more conspicuous and need larger vehicles for their transport. Nevertheless some very expensive plant does go missing - and when it does it can cause a considerable disruption of work. It is often a matter of conjecture how Day

some of these items are removed without any witnesses. Marking larger items is also fairly easy, for instance Kubota operate a marking system using microdots avail-able through all their dealers. It is also possible to mark with paint or with an ultra-violet pen, however, such methods do require that the machine or item is found in suspicious circumstances, and for someone to query the ownership. A simple method is to have stencils cut with the club name and use a spray marker to put your name on all major items. Bona-fide second hand buyers should not have a problem with this.

There are many courses where the greenkeepers' shed is well away from the clubhouse with its own entry and exit to the road, these must be at greater risk. Very few of these premises are locked during the day and few have any security for hours of darkness, nor are most difficult to enter even if doors locked. the are Conventional sheds with corrugated asbestos or fibre cement sides and roofs are simple to break, and bolt croppers or a bar will remove most door locks or hinges. Common sense or help from the local police crime prevention officer may suggest a number of sim-ple precautions which will add to security, and often these are remarkably inexpensive. But it is not only plant and equipment which goes missing, sand, fertilis-ers and chemicals are also known to "walk" nor is it unknown for turf to be stripped or trees



Theft is a growth industry at golf clubs but Hugh Tilley investigates the best ways to reduce the chances of it happening to you...

light bbery

removed under cover of darkness.

Vandalism is very disrupting to the daily routine, and a number of clubs have instigated dawn patrols with greenkeepers checking every green and tee to ensure that all markers, flags and other course furniture is in place before members arrive. Nor need this petty vandalism be confined to misplacing these items, more serious damage may be occasioned by cars driven over the greens and down the fairways.

Footpaths across a course are a known danger point, however, they may not be such a problem if they are purely footpaths with no bike or vehicular access. In addition, people walking dogs may be a potential disruption to golf, but they also offer unpaid security. It may be possible to ensure that vehicular access is prohibited be cementing in posts or putting up gates.

Researching this feature led to contacting a number of clubs - normally the Secretary as the person most involved in club security. This straw poll produced a range of responses from the more secluded clubs which have "no problem" - one secretary qualified this reply - "unless you leave your clubs unattended outside the clubhouse - we have occasional opportunists," to the inner city club which has regular security guard patrols around the car park during the day and around the course at night. This club which is highly security conscious, has digital locks on every external door and is in the process of fencing - with close board fence at 15 per metre - some mile of road exposed perimeter. Needless to say this club also has CCTV, floodlighting and internal monitored security alarms. The secretary commented that this is a considerable cost to the members, but experience has shown that it is essential.

Vandalism would appear to be one most difficult problems to solve The comment from an assistant at one of the Birmingham clubs was that many of the things which he would like to do were illegal! - such as wholesale smacking of kids and putting an electric fence around the course. Holidays, particularly summer holidays, required extra vigilance - and a routine dawn patrol. One Merseyside club has enlisted help from an artisan group and offers policemen reduced fees. Nevertheless both of these clubs have their sheds secured and alarmed.

Further protection can be offered to greenkeeping facilities which are away from the main club complex by creating a secure fenced compound. Floodlights activated by p.i.r. or, better still, dual technology sensors makes for additional security as well as making life easier

for those who are entitled to be there. Dummy alarm boxes and CCTV cameras are a cheap first stage protection. A major problem with many alarm systems on greenkeepers' sheds is that there must be a response - or the likelihood of a response. With many such facilities situated away from habitation and the club house this can be a problem, and a flashing light or siren may not be heard - so many clubs take trouble to hide the sheds. However, there are other options such as radio or cable links to a monitoring point. To be realistic it has to be asked, who will respond? - and will they arrive within about ten minutes of the alarm being triggered. The professional thief anticipates that sort of time within which to complete his task un-molested, and expects to have left the scene within that time.

Secure buildings or compartments can provide a safe home for smaller tools, particularly more desirable ones such as strimmers, chainsaws and small mowers. Workshop tools like electric drills and grinders are also saleable, so are spanners and many other items so they need a lockable store. Ex-shipping containers provide ideal lockable stores, however, they are not very pretty but they can be decorated or screened. Purpose made sheds are also available which look better or there is the option to get a local



builder to make something specifically for the purpose. Chemicals will require their own store. Thorny shrubs such as quickthorn, berberis and pyracantha are effective deterrents in their own right.

Removable lockable posts can be used to protect doorways and obstruct road access, and these can be used to prevent doors being rammed, or to prevent specific equipment being moved, or they can simply prevent vehicular access. There are also other types of barrier with which to prevent access. Many locks are available with multiple keys, it is also easy to extra keys cut, while some situations allow digital locks or combination locks to be used. The more sophisticated digital locks and barriers will allow for easy changing of the number and for more than one code.

Growing use is being made of CCTV - closed circuit television - and again a dummy camera offers a cheap deterrent. The real thing needs to be carefully positioned and specified to give sufficient resolution for identification. Any reputable supplier of security equipment should be able to advice.

Manufacturers of tractors and rideon mowers have also taken up the challenge and most modern equipment is in greater measure vandal and petty theft resistant, by such simple expedients as enclosing oil and fuel filler points with in lockable panels. Putting sand into engine or hydraulics is common form of vandalising - but one which can have expensive consequences.

While this feature has considered security in terms of theft and vandalism, perhaps head greenkeepers and course managers need also to consider the club's responsibility for health and security as this may require security for reservoirs, ponds and other types of risk. Nor is the fact that someone has no legal right to be there a sufficient defence. Fencing and notices stating 'deep water' or similar hazard are simple means of protecting the club against later claims.

Yellow pages will yield a number of contacts for all types of assistance with security, from personnel to equipment. The best recognised qualification for installers for security systems is NACOSS - the National Approved Council for Security Systems but perhaps the better qualification is local experience and word of mouth - and an off the record recommendation from the local crime prevention officer is also useful.

To be in the modern idiom, perhaps most golf clubs need to undertake a 'security audit' and to review their arrangements on a regular basis - and to consider all aspects, course, buildings and any other risk.

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Taking the rough with the Smooth

Eavesdrop on conversation in any clubhouse and the subject matter, especially after a round has been played, is likely to focus on the forever controversial question of green speed. Those whose putts have found the target consistently will shout the loud hurrah; "Our greenkeeper has the equation just about right," they'll say, while the also-rans will vehemently debate–with anyone prepared to listen–the misery of life in Tortoiseville. Next time out, with the tables turned by golf's perverse nature, those same glory boys will be baying for blood. It's a topic which every greenkeeper believes is way past its sell-by date.

It's true, green speed as locker room fodder seems done to death, yet thereis sound argument for turning the tables 180°, counter-attacking with the contention that it is the perception of green speed which is beating the golfer at his own game. How come? Ask a few simple ques-

How come? Ask a few simple questions, like how are they measuring this so-called speed, how do they judge slow from medium...and what exactly is fast? Does the average golfer really know? Touch and feel are the senses by which a player purports to measure your greens, yet the simple, clinical fact is that touch and feel cannot be measured, it's different for everyone, no two ever are alike.

By the same standards, and this is a point green committee men especially might take on board, no two golf courses-or two greens, for that matter-are ever alike. The variables are too numerous to list but include variant grass species, changeable climate conditions (dew-soaked morning greens, quickened naturally by Mother Nature as the day progresses), contours, green sizes, shelter from trees versus raw exposure to wind, outbreaks of disease, the list is endless.

It is the so-called elite golfers (handicap zero to five, shall we say), who are the most vocal. For them especially the game has changed; for their demands have wiped away the old philosophy of 'playing the ball where it lies' to one of insistence that greens be set up so that they may lob the ball into a perfect, playable position every time. Yet golf is meant to be a game of strategy and positioning-above the hole with downhill slope should be three-putt country, for the point of positioning has been missed. As golf writer Jim Achenbach opined most recently, "anyone who ends up in the wrong position on the green should be putter-whipped."

What can be measured, in terms of the number of days before turf stress sets in, is the direct correlation between giving golfers what they interpret as fast (shaven) greens and compromising the continuing good health of your sward. Your members will not thank you for failing, while providing shaven surfaces on a continuous basis will very likely give you an odds-on chance to line up at the employment office.

So, how will you keep the putting pundits satisfied? The answer, because golfers confuse fast greens with consistent roll, is to be found in one simple word – SMOOTH!

Because the cutting of greens is per-

The extra care taken when greens are cut by pedestrian mower is vividly portrayed here at the world-famous Pebble Beach course.

haps the most routine of all jobs, it is easy for the operator to slip into auto-pilot, overlooking the simple things that produce perfect results. The objective must be to achieve a perfect, smooth, stress free cut, clean straight lines, every time, without scalping high spots or leaving hollows with uncut, lush patches. This is easy enough on greens which are relatively flat or gently undulating, but where severe contouring is found, particularly on the cusp of a two-tier green, the problem calls for extra care.

Extra care means checking your mower regularly, ensuring blades are set accurately to the desired height and that they are very, very sharp! With rare exceptions, there is little need for the height of cut to drop below three sixteenths of an inch, which is stressful enough, considering the rigours of daily play, indeed quarter of an inch is often acceptable for routine play if all other smoothness regimes must permit the ball to be stroked rather than clouted, thus rolling more easily across surfaces where friction has been reduced to a minimum.

These include reducing thatch build-up; verticutting as often as good sense dictates with the blades set 'softly' so the unit just nicks the sward, lightly dressing the turf, regularly and carefully, ensuring all the topdressing is drag matted or brushed into the surface, followed a few days later with a pass using turf groomers–lightly again. All of these will contribute toward the target of

uniformity. It must be stressed, however, as no two greens are alike, greens at variance with each other will not necessarily need an equal amount of mechanical grooming.

In this sometimes ridiculous race for pace, the greenkeeper may take comfort in knowing that turf machinery manufacturers are clearly supportive, indeed far more concerned for continuous turf health than are your members for speedy greens. Knowing that many greenkeepers prefer walking, the array of walkbehind greens mowers–Super Certes and the 11-blade reel Ransomes Greens Super are confirmed favourites–is sufficient to please the most fastidious, offering a choice of tournament bedknives, brushes, vertical cutters, two-inch guide wheels, roller scrapers, indeed nothing is too much trouble in this customer-led situation.

What is also clear is that many more turf managers are ringing the changes, using ride-on's during weekdays and walk-behind mowers at weekends. Of course, mowing with a ride-on is altogether different, with greenkeeper and machine effectively moulded into a single unit. A riding triplex is faster than a walker, so operators should be especially alert for any grease or oil spillage, be prepared to stop immediately, shut off the machine and to clear up before too much damage has been caused. For this reason alone, though clearly there are many other benefits, both mechanical and environmental, (for the parts it doesn't have, or need, for instance), the battery powered electric triplex mower is winning converts galore.

Finally, a word about Stimpmeters. Master Greenkeeper Terry Buchen is a believer in the tool's value for measuring consistency and 'truth'. Roll three identical balls, each bearing the same brand and compression ratio, from the same angle, he says, and if the surface is free from deforming characteristics those balls will gently touch one another-in both directions. Buchen has expressed surprise at the pride some UK greenkeepers exhibit in having greens which, by their inconsistency, test 'local knowledge'.

Then there's the lovely true story concerning Shaig Logan, for many years before his demise the Head Greenkeeper at Muirfield. Shaig was presented with a Stimpmeter prior to The Open being staged at his course. "What's this for?", he asked. It's for measuring the speed of the greens, he was told. "Why would I want to do that?" So that you can make each green roll at the same speed. "Why would I want to do that?" So the 1st green would not be slower than the 9th, that the 10th be equal to the 17th and 18th; not slower, not faster. "But, laddie," he said, "that's why we have practice rounds."

How do you measure up?

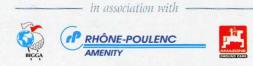
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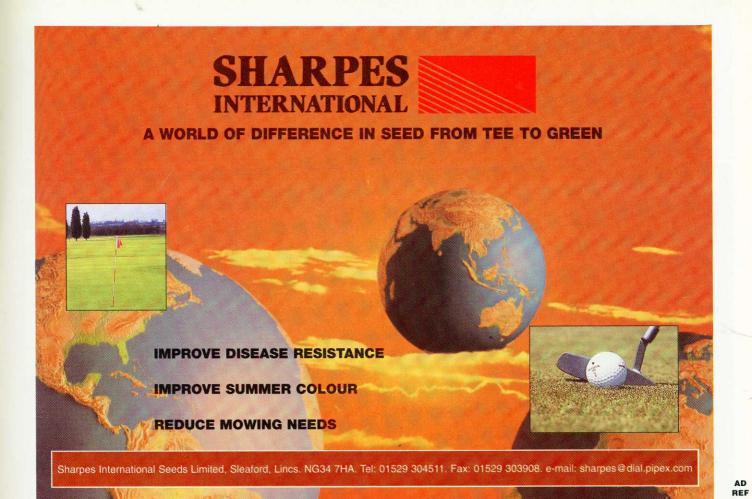


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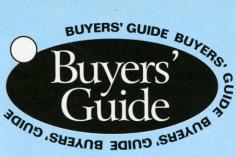
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Practical Greenkeeping by Jim Arthur

No one knows more about golf green-ceeping than Jim Arthur, whi with a arcer spanning six decades has given priceless guidance and advice to over olog olf clubs throughout the U.K. and here roy Practical Greenkeeping, should beat a path down Jim Arthur's solog off clubs throughout the U.K. and well-proven notic. It could well lead to the salvation of their golf courses, while making them look awfully clever lato the bargain!

or the new generation of student an innee greenkeepers. Practical intenkeeping will be indispensable, roviding a valuable insight into the usis and boits of traditional golf ourse management, while it should e required reading for all golfers whe reading the students of the students off course managers also will be napired by Jim Arthur's champl-ming of their cause, while prizing the construction that they are firmly an the right lines, his words their nest ally.





Golf Course Presentation

rse managers because wher manient player, or even an iteur golfer, leaves a golf co r aremember how it looked, i fast it played," Mike Mer urse Manager, Penina Golf npliex, Algarve, Portugal









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Applications in writing with full CV to: Karen Mulvagh, Personnel Manager, Five Lakes Hotel Golf and Country Club, Colchester Rd, Tolleshunt Knights, Maldon, Essex. CM9 8HX. Tel: 01621 868888.

The closing date for applications is May 20, 1998.

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> The Secretary, Maesteg Golf Club, Mount Pleasant, Neath Road, Maesteg CF34 9PR

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The Secretary, Alan Chapman, Ellesmere GC, Old Clough Lane, Worsley, Manchester, M27 7HZ. Tel: 0161 7990554

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Please apply in writing with CV to: The secretary, Epsom Golf Club, Longdown Lane South, Epsom, Surrey, KT17 4JR by May 30, 1998

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Applications in writing with current C.V.

To: Brian Owen, Course Manager, Tadmarton Heath Golf Club, Wigginton, Banbury, Oxon. OX15 5HL

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Application forms and further details are available by telephoning the Personnel Unit on 01753 676287 (24-hour answerphone) or by writing to the Personnel Officer, South Bucks District Council, Council Offices, Windsor Road, Slough SL1 2HN.

The closing date for applications is 18 May 1998.

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Mr Steve Rees, General Manager, Cookridge Hall Cookridge Lane, Leeds, LS16 5NL

Applications close on the 15th of May 1998



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VIII

Sandy McDivot, Head Greenkeeper at Sludgecombe Pay and Play, discusses the pros and cons of consultants, and outlines how to get advice from them...

There is, in this world, a boom industry that seems to be for ever growing. It may not lay claim to being the oldest profession as that particular tag has apparently been applied to some other vocation but it may lay claim to being the second. One can imagine the scenario; Neanderthal man decides to go into business selling a particular product or service. As soon as they find their first punter and manage to tell of their successes there appears from out of the woodwork someone that says, "Sure you're doing it that way, but if you do it this way you can treble your prof-

its in the first two weeks and what's more I will only take 10% to start with." I am, of course, talking of the consultant.

In our industry we have a veritable profusion of these that come under the heading of Golf Course Agronomists. In the old days there were but a tiny few in number. Take away Uncle Jim who appears to have been going for several centuries now and a few at Bingley and there was nothing to chose from. But over the years as golf has increased in popularity it seems as though every Dave, Jack and George is setting up business as an expert in the field.

The problem would appear to be that there are so many differing ways of going about the task of maintaining a golf course and indeed so many different types of course. We used to have the old push up

golf course that built was decades ago out of what ever was at hand. Now we have the sand based construction and all its derivations. Some advise a lean and hungry approach, others are more willing to use every type of nutrient going in an effort to keep optimum growth of the grass. Many have there own particular secret that they apply to all courses while others are willing to use any golf course as a kind of laboratory in which to carry out their trials of a new theory that they may have.

There is one thing that puzzles me about the increase in agronomists over the years. It appears to be a peculiar paradox that in the old days when to be quite honest there was nothing like the knowledge of greenkeeping that there is now, there appears to be a greater demand for the adviser. I mean lets face it, when I came into greenkeeping many years ago there was little in the way of education, and nothing in the way of available information compared to nowadays. Some of the Head Greenkeepers that I used to work for knew about as much about greenkeeping as I do about nuclear physics. First year students of nowadays would wipe the floor with some and I stress some of those old Head Greenkeepers whose standard qualification would be to talk with a strange provincial dialect and to be able to wield a scythe. In those thankfully far off days I could well understand committees bringing in advisers every so often so as to give the man in charge a rough idea of what a golf course should look like. But these days it appears that despite the relative huge improvement in knowledge and understanding, the agronomists are as busy as ever. I can only put this strange anomaly down to a sign of the times. I do not think it is a lack of trust but just a general acceptance that consultants are called in for anything that would appear to the present day layman as being in the least bit technical. That would explain why secretaries, stewards and pros do ne have their own consultants brough in, ie their jobs are not in the least technical.

'So what type of agronomists at there. Well broadly I have worked c that they fall into four main grou 1) those who take advice. 2) those who do not give advice. 3) those who give advice. 4) Those who give bad advice.

The best of these for Head Greenkeepers is the first of these ie those who take advice. If you're lucky enough to get one of these agronomists then your whole quality of life can be improved. This is the agronomist who comes along to your course once or twice a year and wanders round while you tell him what you have been doing, what you intend to do and why. He then goes back to his HQ and writes up a report detailing exactly what you have said. Everyone is happy. He's happy as he gets regular employment, you're happy as you get back up and the committee are happy as they get a nice, neat report full of technicalities that they will never understand. If you're very lucky you can actually get this type of agronomist to ask the question "do you wish me to put any of the following in my report a) new machinery, b) new staff, c) all expenses trip to GCSAA annual bash etc...?" Marvellous, and yet so simple.

Then we have the second type of agronomist, those that give no advice. This type can be a very useful stress relieving tool for the present day greenkeeper. As we all know, in order to achieve good results in the long term, we have to endure bad results in the short term. Aeration, top dressing, scarification, feeding you name it, they all result in a temporary deterioration in quality. This is when the above agronomist comes in to his own. The committee or the members ask the perennial question "why do you have to do that just when the greens were getting nice?" to which the greenkeeper can reply "because the agronomist says so" and there on the agronomists report is written hollow tine and top dress in the spring, apply 8:0:0 in the summer etc., etc....

Now this to the average greenkeeper is not exactly an earth shattering new theory on the maintenance of fine turf but it does keep the uneducated masses that like to clutter up our fairways, happy that their overpaid Head Greenkeeper is getting useful guidance. There is an additional advantage to be gained from this type of agronomist in that his report contains just enough jargon to keep the golfers respect of their greenkeepers. After all there are not many committee men or ladies, let alone plebeian members who have an earthly of what 8:0:0 is.

The third type of agronomist can be a little more dangerous. This type like to get above their status and give us advice on how to do things. Don't get me wrong, it can be well meaning advice but because they have never been greenkeepers themselves it can be totally impractical. Let me give you an example. I have got a report from an agronomist that advises I hollow ine my greens and fill up the holes with pure sand to 5mm from the surgive. I then top dress to the surface oth regular 80:20 so as to facilitate an overseeding programme. Now I am for the surface of the surface of the surface of the surface of the sure what planet this particular for witational pull it has, but here on

Earth one cannot simply back fill with sand to 5mm of the surface. Some holes get filled up and others are left pretty much empty, which ever way one does it. So we top dressed with plenty of sand and they all filled up right to the surface. It was the only thing that was practical. At Sludgecombe Pay and Play I am blessed with a couple of owners whose only interest in my department is the spending side, I have no greens committees to worry about and so this sort of report does me no harm what so ever. However at clubs that have those dreadful committee members that want to get involved, it could be a problem. They may insist that the agronomists advice is followed to the letter and ask searching questions when it is not.

The fourth type of agronomist is the worst and, I am glad to say, a relatively rare breed. These are the ones who not only insist on giving advice but give bad advice. For example I have heard of a so called agronomist that basically advises severe monthly scarification followed by a heavy, pure sand top dressing. He claims that slit tining does no good what so ever and has a fervent belief in applying vast quanti-ties of calcified seaweed. The problem is, he peddles these theories directly to the greens committees and course owners and they being complete laymen when it comes to turf maintenance fall for his smooth verbal delivery and outlandish claims. In one case where a friend of mine was involved, the course owner accused my friend of trying to pull the wool over his eyes when he disagreed with this particular agronomists advice. The result was the owner took side with the agronomist and my friend found it necessary to find employment elsewhere which I am glad to say he did successfully.

In another case, previously documented in this magazine, the committee forced the Head Greenkeeper to action this same agronomists advice. As this course was a prestigious links course with associated fine turf it was not long before the regular scarifications, sand smothering and huge pH increases from the calcified seaweed took its toll and the greens effectively gave up the ghost and died. However, as is so often the case, the committee once again took the side of the agronomist and the Head Greenkeeper was given the blame and the sack. He managed to get a favourable settlement but such a blow can destroy a career for good.

I must not however get too cynical about agronomists. As I wrote earlier they can and often are, a great asset to the greenkeeper. However, I think the fundamental problem with them is that they are called in by committees once or twice a year to advise and often advice is the last thing that is needed. Sometimes its best just to keep things simple and let the greenkeepers get on with it and the best agronomists are the ones that in the right circumstances do just that. So if you're looking for a good agronomist that can help you, then my advice would be to look around, look at there track history, talk to other greenkeepers that have used them and, remember, they are there to help us.





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Feature listing from April '96

April '96; Brush Cutters; Ear Defenders; Forest of Arden Golf & Country Club; Golf in Asia; Turf Production; Environment

May '96; Aeration; Lingdale GC; Pumps; Security and Vandalism; Furniture and Fittings; Risk Assessment

June '96; Compaction; Seacroft GC; Education; Health and Safety; Architecture - East Herts GC; Fighting Annual Meadow Grass

July '96; Loaders, diggers and excavators; Royal Lytham GC; Protective Clothing; Modern Apprenticeships; Irrigation

August '96; Turf Tissue Analysis; Environmental Communication; Assessors; Tee Mats

September '96; Budgeting; Greenkeeping in Finland; Kings Acre GC; Grinding; Role of Training Providers; Blowers

October '96; Drainage; The Wentworth Club

November '96; Irrigation Equipment; St Andrews; The Oaks GC; Engines

December '96; Maintenance Facilities; History of the Mower; Mentmore Golf and Country Club

January '97; Trees; Tenby GC; Communication; Addressing the inbalance in Sports Turf; Hiring Equipment

February '97; Attending to the Details; Computers; Fertilisers; Rudding Park

March '97; Making Machinery Last; Computers; Irrigation; Musselburgh Old Links; STRI; Defining Playing Performance; Compact Tractors

April '97; Turf Quality; The London Club; Computers; Electric Greens Mower; Course Accessories; Ecology; Aerators

May '97; Data Tagging; Naunton Downs GC; Alternative Spikes; Suspended Water Table Greens; Shallow Aerators; Working in Germany

June '97: Drought Survival; Cooden Beach; Monitoring the Weather; Slitters

July '97; Royal Troon GC; Speed of Putting Surfaces; Mowers

August '97; Maintenance Facilities; Heather Management; Bunker Rakes; Workshops; Architecture; Kedleston Park GC

September '97; Accident Reporting; Greens Mowers; Valderrama GC; Links Courses

October '97; Environment; Recruitment; Abbeydale GC; Rough Mowers; Soil Analysis

November '97; Environment Competition; Bank Cutting; Risk Assessment; Pumps

December '97; Seed Development; Longhirst Hall GC; Toro Awards; Fertiliser Spreaders; Communication

January '98; FEGGA Conference; Buying Power Equipment; Elmwood GC; Mobile Phones; Traffic Management; Spraying; Environment

February '98; BTME Review; Overseeding; Royal Mid Surrey GC; Drainage; Thatch

March '98; Trees, Golf Course Accessories, News from GCSAA, Leamington & County GC, Trevor Smith's BTME Talk

April '98; Gleneagles Hotel, Compact Tractors, Environment, Protective clothing, Rain bird, Internet



The key to SUCCESS



At the end of March I had the pleasure of attending the North West seminar at Mere Golf & Country Club in Cheshire. The day was organised by my old friend Bert Cross. Bert and I go back a long way, to our army days, both serving in the Kings Regiment in Korea in the early '50s. So we had much to talk about over dinner the night before and very enjoyable it was too. The seminar had to be good to match the luxurious venue, and so it proved to be. The papers given by all the speakers were excellent, covering new courses from Scotland to Saudi Arabia, although I prefer the Scottish version to the desert where golf just doesn't seem right. They were all very interesting. There were also papers on nutritional values and pest control which gave the day a nice balance. The attendance of about 100 delegates, many of whom were trade people, must have been gratifying to Bert and his committee, but sent a clear message to the greenkeepers who did not turn out. You don't know what your missing! A message which seems to echo many educational events.

Why are we greenkeepers so backward at coming forward. When it comes to education it always seems to be the same 10 to 20% who attend and want to learn. Every greenkeeper has a duty to him or herself to keep up to date with the ever changing trend of our industry. We may have been to college recently or in the distant past, but no one will ever know it all and as professional people we owe it to our clubs to keep in constant touch with what's going on.

BIGGA run management courses both at Aldwark and out in the regions along with a National Conference, workshops and BTME seminar programmes, plus on your doorstep the sections and regions run their own educational events just for our benefit, all of which take a lot of time and effort to organise. Why is it that such a small percentage attend?

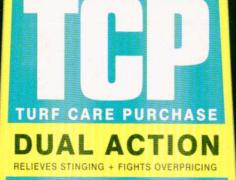
Education is the key to success. All we need to do is look around us and see how many excellent young greenkeepers have taken this route to bigger, better and higher profile jobs, but they have had to work at it. It's worth remembering that success only comes before work in one place – the dictionary. The association plays its part, all we have to do is turn up and learn. Having let off steam and put the ball firmly in your court, if there is anything you feel the association can do for the benefit of greenkeepers and their education, please let us know and we will try to help.

On the golf course, May is the month we start to see results of all the work put in through last winter as the turf starts to thicken up and playing conditions improve. For my part I am looking forward to visiting many courses and seeing old friends. My first trip will be to Penrith for the Cumbria Cup on May 20. The National Tournament this year will be at Letham Grange in Scotland. I know that it's a long way for members in the south of England, but I can assure you it will be worth the trip. Scotts, our sponsors have made a big effort on your behalf, and along with your staff and National Board the whole profile of the tournament will be raised over the next few years. So do try to be a part of it and let's see if you have it in you to be a champion. Scotts really do deserve your support, they certainly have mine, so if you think you can

beat me, have a go. The staff at HQ have just gone through a period of change. Last month we reported the sad loss of Janet, our Membership Services Officer and Amanda from advertising. Janet's post has been filled by Tracey Maddison who I am sure will do a good job. Now Emma, who is also moving away, and Karen are both leaving our employment, but I can assure you all that there is a good and sound morale within HQ and the vacancies will soon be filled.

On a happier note our new building is coming along very well and we can look to completion with a great deal of pride and excitement.

Gordon Ch



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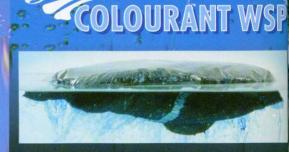
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