

GREENKEEPING

M A N A G E M E N T



- ★ Irrigation Systems and Equipment
- ★ Aspects of Design
- ★ Spotlight on Egham

- ★ Westurf '90
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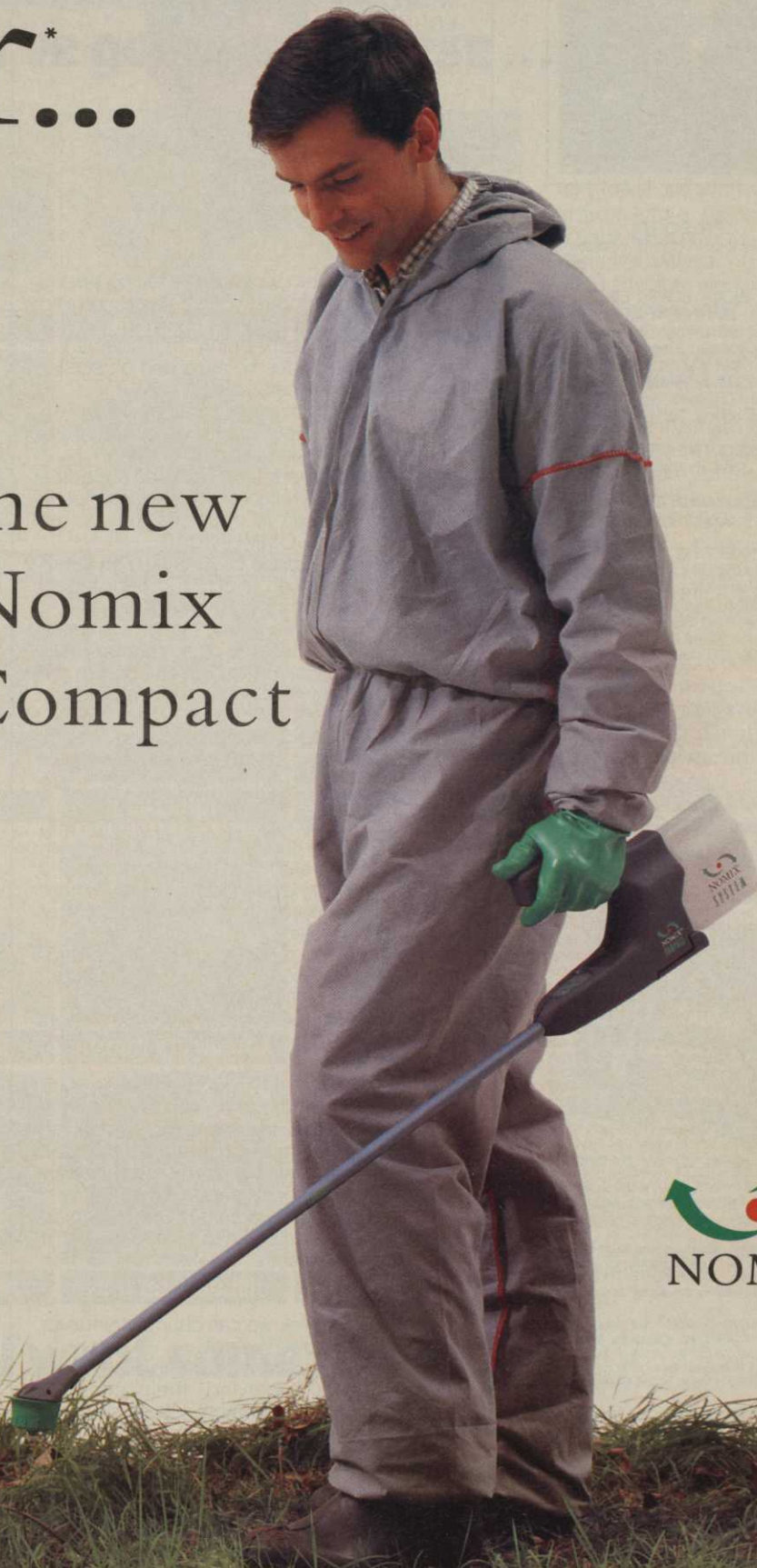
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Cover Picture: Our front cover picture shows a group of delegates against the imposing backdrop of the Egham venue for B.I.G.G.A.'s National Conference. See inside for a major photo special feature of the Conference.

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ISSN 0956-4519

In my view . . .

WITH
EDITOR
MIKE
McCLENNAN



COMING into a new and exciting post in a thriving industry, has already proven a revelation to me. In this, my first editorial for Greenkeeping management I would like to set out my aims and objectives to you, the members.

First and foremost, Greenkeeping Management is **your** magazine – it's a point I cannot emphasise strongly enough.

Without members' kind help and support a fair and accurate reflection of views cannot be given. So put pen to paper or pick up the telephone and **COMMUNICATE**.

I'll always be keen to talk and take on board all the major issues affecting greenkeepers today. I know from my relatively short time in the post just how many factors influence members lives. There are pluses and minuses in all jobs and I intend to highlight both in the months ahead, which brings me to my second point.

I see the magazine as playing a vital campaigning role. There are many anomalies and much injustice in the way members are treated and regarded within the industry.

Attitude and conditions need to change and change fast. Some clubs must be dragged, kicking and screaming if necessary into the twentieth century and made to adopt a more professional approach to their treatment of greenkeeping staff.

This has to be reflected across the board. In conditions of work, training, resources but perhaps above all in **PAY**.

I find it hard to believe how clubs can expect staff to survive on the miserable pittance many serve up.

It is a tribute to your dedication and professionalism that the standard of golf courses in this country is so high. Overplaying is a serious problem which must be addressed if our courses are not to be permanently destroyed by the insistence of members on using facilities to excess. Greenkeeping Management is determined to lead the battle on contentious issues. But extra ammunition is so vital. You the members can provide it – get in touch.

Working together we can change things for the better. Happy mowing!

P.S. I have had several complaints about members not receiving their copy of Greenkeeping Management. Obviously this is unacceptable and I am looking at our distribution service to see if the fault lies with us. However I would ask anyone, not receiving their magazine to contact their local post office and complain. The more complaints received the less likely the post office is to ignore grievances.

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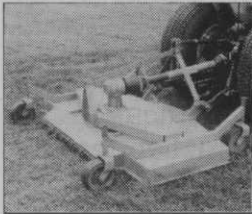
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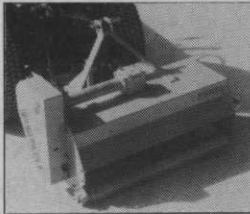
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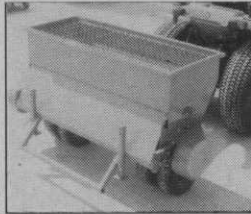
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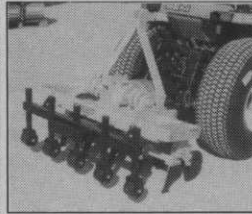
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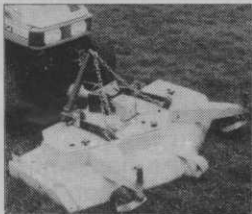
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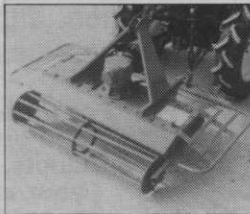
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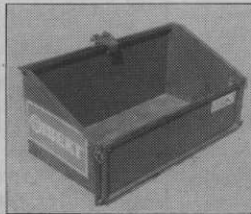
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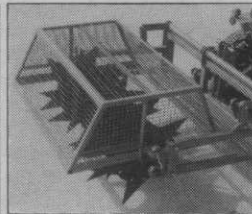
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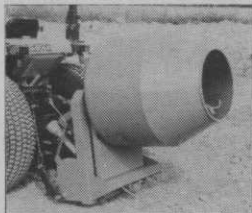
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POWER LEVEL



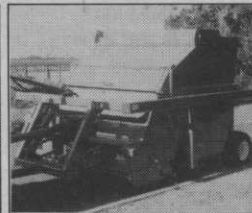
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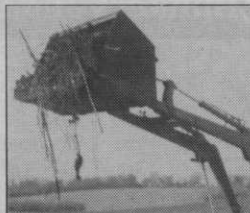
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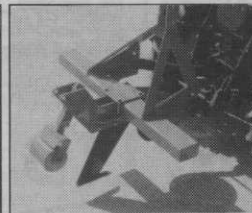
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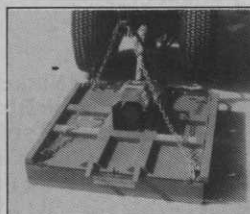
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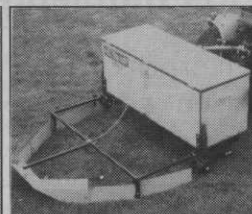
HEDGE TRIMMER



ROTARY CUTTER



POST HOLE BORER



COREMASTER

...you'll want some of these

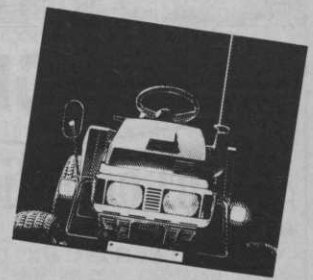
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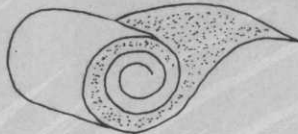
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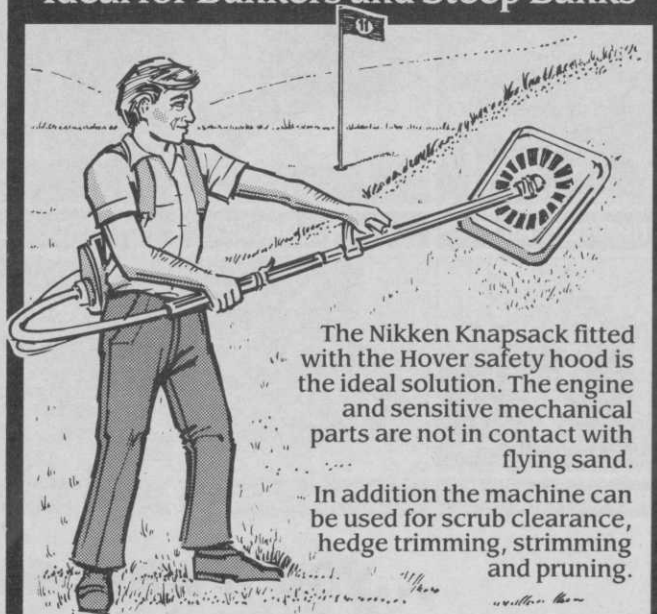
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GREENKEEPER CONSULTANCY INITIATIVE

THE BIGGA Greenkeeping Consultancy Service in association with the International Golfers Club (IGC) was launched at the BIGGA conference in Egham sponsored by the IGC. Jack McMillan became operational on April 1.

In parallel with the huge growth in the golf industry throughout Europe, Jack has got off to a "flying start". The first three days of action saw Jack out in France at Golf de la Lague, he has subsequently made three further visits at the request of other golf complexes in France and Switzerland.

The Initiative receives considerable interest from the Continent, and surprisingly has met few acute language barriers.

In mentioning languages, there are opportunities for English speaking trainee greenkeepers on the Continent to accompany Jack as an interpreter on future visits to their home countries. Aside from a small wage settlement, courtesy of IGC, invaluable experience can be gained in accompanying Jack.

Jack is also very busy offering advice to both new large multi million pound projects and indeed individual members clubs.

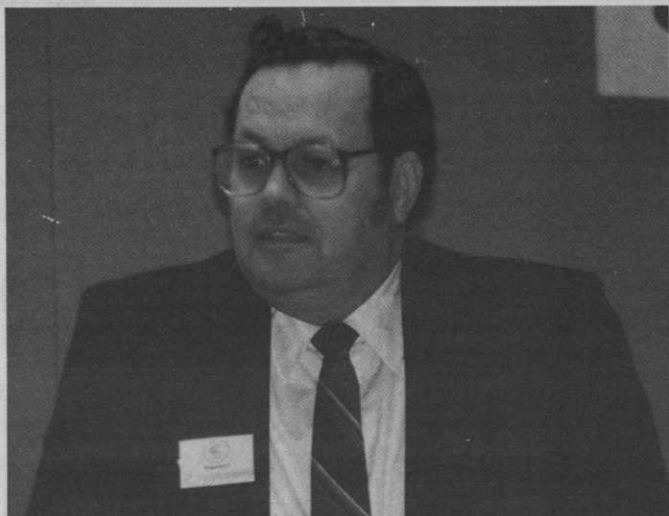
It is pleasing to see that every club Jack has visited to date has requested an ongoing series of visits.

Jack will be making visits to different regions in the forthcoming months, should you require further information on the above, please contact Samantha Flint at BIGGA. I would like to emphasise that the Initiative gives the STRI its full support and at every club visited, Jack encourages the employment of the STRI.

1990 NATIONAL TOURNAMENT GANTON GOLF CLUB 6th-9th AUGUST

ENTRIES are invited for the above event to be played over three days at the majestic Ganton Golf Club in Yorkshire.

A banquet will take place at the Royal Hotel, Scarborough on the Tuesday evening and the prize presentation will be held on the Wednesday, following completion of the third round at Ganton Golf Club.



Dr Beard

WORLD EXPERT AT BIGGA EXHIBITION

ONE of the world's leading authorities on turf – Dr James B. Beard has agreed to present a two-day workshop prior to the 1991 BIGGA exhibition in Harrogate.

The workshop is scheduled for either a January 21st or January 22nd start and is bound to create extensive interest and demand among members.

In fact BIGGA staff are already predicting over subscription at this early stage. The announcement guarantees huge crowds of greenkeepers in Harrogate –

good news indeed for companies committed to the Exhibition.

And yet a further incentive to companies not yet certain to take the plunge and participate in what looks like being the premier greenkeeping exhibition of 1991.

Further details of Dr Beard's workshop will appear in a later issue of Greenkeeping Management.

For further exhibition details ring organiser Debbie Savage at BIGGA headquarters, Aldwark Manor, Alne, Yorkshire on 03473 581/582.

Don't delay – ring today or you'll feel out in the cold next January!

REGATTA FUN

IT'S the 150th year of the Whitby Regatta from August 4th to 6th – and there's lots to do for the wives of greenkeepers attending the national tournament at Ganton between August 6th and 8th.

A fantastic treasure hunt, flying displays, comic events – the Regatta has it all for wives to enjoy.

Surely yet another reason to pop along to the tournament. While the men are on the course the ladies can be on course for fun!

The event will be multisponsored and coach trips will be arranged on two of the days for companions.

Entries to BIGGA Headquarters enclosing a cheque for £30.00 to include one banquet ticket.

Extras: Banquet per ticket £14.00; Coach trip: Monday-Yorkshire Dales £7.50; Tuesday-Trip to York £5.00.

Accommodation

MEMBERS wishing to book accommodation with fellow competitors for the National Tournament may book at the Southlands Hotel. The address as follows: Southlands Hotel, West Street, Scarborough. Twin-Bedded Room - £25 per night, bed and breakfast. Single Room £32.50 per night, bed and breakfast.

A mini-bus service will run from these hotels to and from Ganton Golf Club. All accommodation enquiries to Samantha Flint at BIGGA Headquarters. **BOOK EARLY!**

MANAGEMENT COURSES 1990

FOLLOWING the success of the 1989 Management Courses held at BIGGA Headquarters, Aldwark Manor, the courses are to be repeated this coming autumn/winter.

Joint sponsors of the 1989 series – Kubota UK and the Greenkeepers Training Committee – have again agreed to part-fund the indepth week of education. Last year's delegates wishing to return to BIGGA Headquarters will have the opportunity in week 4 with a specially designed week to follow on from their first course. Priority will be given to delegates who attended the 1989 series to attend Week 4.

Weeks 1, 2 and 3 will be very similar to last year with slight modifications. The changes will be on the suggestion made by delegates attending the 1989 series however, one suggestion made by some of the delegates was to take out the early evening seminars.

This will not be taken on board and attendees in October and November can expect a very intensive week. Please do not be put off as there is still plenty of free time to socialise with fellow greenkeepers.

The courses are expected to be quickly over subscribed and early application is advised. Do not rely on others to book for you!!!

Eight Master Greenkeepers Credits will be issued per week. Week 1 commencing Monday 22 October, Week 2 commencing Monday 29 October, Week 3 commencing Monday 5 November.

● All courses finish on the Friday lunchtime.

Course content includes: Time management, conservation, preparing budgets, personnel management, health and safety, turf diseases, maintenance problems of: Tees, greens, fairways, bunkers etc., pesticide regulations, grasses for the golf

This article continues on Page 33.

Dear Sir,

I would be grateful for your help in obtaining a job. I have attended college in Holland for one year, carrying out practical and theory study, with up to now first class results.

My work experience includes practical experience working with the Course Manager Bill Garner at Hilversum, then further experience at three courses here in Holland.

I am looking for work within the Cheshire Area, as I will attend Reaseheath College in September this year. Therefore I can work, and travel to college.

I would appreciate your help in this matter. Bill Garner could give a reference for me. Tel. 35-63006.

**Yours truly,
ARNE VAN AMERONGEN
Wakkerendijk 166A
3755 DH Eemnes
The Netherlands**

IN THE PICTURE

"NEW"-PORTABLE DIAGNOSTIC MICROSCOPES

MACROSCOPE 25 and the new Macroscope 18-36 Zoom are two portable microscopes ideal for diagnostic work in the turf grass industry.

The design of both units is such that they can be placed on the green and the problem viewed directly rather than by removal of a plug for placement on the microscope stage. The design of the unit eliminates the need to prepare a slide.

The image provided is bright, clear and positionally correct over an extremely wide field of view. Since its introduction to the turf industry in the US in 1985, over 3000 Macroscope units have been sold to golf course superintendents and other professionals working in this industry.

Macroscope 25 provides a fixed magnification of 25x over a field of view of 5/16 inch in diameter. It is powerful enough to spot tell-tale signs of many turf grass diseases such as foiler lesions of dollar spot or leaf spot or tough to identify weeds or insects. Macroscope 18-36 Zoom with its variable magnification provides an even wider field of view at the 18x magnification or much more detail at 36x magnification.

Both units are camera adaptable by means of the simple, low cost adaptor, Macromate I. The unit couples either Macroscope to the filter threads of most 35mm SLR lenses. It couples directly to 52mm diameter lenses and to other diameters via commonly available stepping rings.

Major U.S. clubs already using the equipment include: Boca Rio Golf Club, Boca Raton, Boca West Golf Club, Bethesda Country Club, Bethesda, MD, Bretton Woods, Germantown, MD, Chevy Chase Club, Chevy Chase, MD, The Country Club, Brookline.

MACDONALD TO DESIGN NEW GOLF COURSE IN EAST ANGLIA

ANOTHER championship golf course is to be built in East Anglia which is fast becoming one of the most rapidly expanding areas of golf development in the British Isles.

Frank MacDonald and his Lowestoft-based Lound Manor



Giving the final touch to one of the new railing sections for the 180-year-old Ransomes bridge is Mr Keith Gardiner the estate carpenter. Looking on, (left to right) are: Lord Tollemache: Ransomes Foundry Manager, Mr David Wright and Mr Paul Winbolt a local garden furniture specialist.

JUST IN TIME

SITUATED in Suffolk, nine miles north of Ipswich, surrounded by a moat and 400 acres of attractive parkland grazed by spectacular herds of red and fallow deer is the magnificent Elizabethan building, Helmingham Hall.

Approached through an avenue of oak trees, planted in about 1700, visitors cross the 60ft wide moat on an iron bridge which was built some 180 years ago.

Believed to be the first, but

if not, it is certainly amongst the earliest bridges made in the Ipswich foundry started up in 1789 by Robert Ransome, founder of Ransomes Sims & Jefferies.

The 180 year old iron bridge was in recent need of cosmetic attention, so Ransomes were asked if they could replace the damaged railing sections. Casting and fixing the new sections for the old Ransomes bridge was one of the last jobs carried out by Ransomes' Nacton works foundry before its closure.

Landscapes group, are to design and build a new 18-hole golf course at Fritton near Great Yarmouth as part of a major complex which will include a luxury hotel, conference centre and a comprehensive range of indoor leisure facilities.

Holmesquest Holdings based in Loddon, Norfolk have commissioned Frank MacDonald and his team to create a high quality course on a 1100 acre site at Caldecott Hall which was previously farmland with gently undulating free-draining soil, making it an ideal site for a golf course.

The project is expected to start shortly and will take two years to complete.

With more than 30 years experience in golf course construction Frank MacDonald is well aware that a wide range of golf facilities are required so that the sport does not become elitist.

He has worked alongside Sir Henry Cotton, Frank Pennink, Charles Lawrie and Peter Alliss on major projects including the third course at Carnoustie.

A THOUSAND THANKS TO COMRIE GOLF CLUB

COMRIE Golf Club has become the recipient of the one thousandth subscribed copy of Greenkeeping Management. Yes there are now 1,000 subscribed copies of Europe's most widely circulated greenkeeping magazine winging their way each month to U.K. golf clubs.

A staggering fact when you consider that Greenkeeping Management is barely one year old. It's proof positive that the industry has recognised a quality product and wants to join in and enjoy a major magazine success story.

But we at Greenkeeping Management want to do more than just thank our supporters from Comrie.

We intend to repay their faith in our magazine by offering them three years subscriptions absolutely FREE!!! We're confident that the gesture merely signifies the start of a huge subscriptions explosion.

Here's to the next thousand subscriptions to Greenkeeping Management!

More In The Picture on Page 40



Pictured at the seminar are, left to right: Alan Ferguson and Norman Duncan, both of Sports Turf Services, Alan Clark, greenkeeping lecturer at Elmwood, Graham Francis of Turf Irrigation Services, Carol Borthwick, also a greenkeeping lecturer at Elmwood and Jim Clowes, also of Turf Irrigation Services.

TURF IRRIGATION SEMINAR AT ELMWOOD COLLEGE

ELMWOOD College at Cupar recently hosted a seminar held by Turf Irrigation Services Ltd. Sports turf service representatives were also in attendance as they are the local suppliers for Toro irrigation equipment.

There is an increasing awareness of the need for irrigation on all golf courses, particularly after last summer's

drought. Levels of irrigation equipment are becoming much more sophisticated many are even computerised. The greenkeeper of today must be aware of how to use and maintain such equipment.

Elmwood College has excellent facilities to run educational seminars in its newly refurbished Elmwood House, and what could be more appropriate than that such a seminar be held in North East Fife, the home of golf!



THE OFFICIAL PUBLICATION OF THE
BRITISH AND INTERNATIONAL
GOLF GREENKEEPERS ASSOCIATION

1990 BIGGA GREENKEEPER MEMBERSHIP PACKAGE

BIGGA offer a comprehensive membership package for greenkeeper members. The full range of services and benefits is in line with a progressive professional Association, abbreviated details overleaf. Full details are available from Headquarters Office on request.



BIGGA 1990 MEMBERSHIP APPLICATION FORM

(not be completed by 1989 members)
PLEASE COMPLETE FULLY IN BLOCK CAPITALS

GREENKEEPER MEMBERSHIP

FULL NAME.....
HOME ADDRESS.....
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COUNTY.....POSTCODE.....
TELEPHONE.....
DATE OF BIRTH.....
PERSONAL QUALIFICATIONS.....
.....
NAME OF EMPLOYER.....
ADDRESS.....
.....
COUNTY.....POSTCODE.....
TELEPHONE.....
POSITION HELD.....
.....
DATE OF APPOINTMENT.....

ASSOCIATE/COMPANY MEMBERSHIP

FULL NAME.....
NAME OF COMPANY (where applicable):
.....
PREFERRED MAILING ADDRESS
.....
COUNTY.....
POSTCODE.....
TELEPHONE.....
POSITION.....
I hereby apply for membership of the British and International Golf Greenkeepers Association and agree to abide by the constitution and rules of the Association.
Signed.....
Dated.....

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Licence No. NT 1638

2

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MARKET LANE
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MEMBERSHIP FEES

Subscriptions for Greenkeeper membership should not be sent with the application form but will be invoiced separately.

Fees payable will be:

Course Manager/Head Greenkeeper	£36.00
Deputy Course Manager/Deputy Head Greenkeeper	£33.00
First Assistant/Assistant Greenkeeper*	£31.00
20 years of age or under	£20.00
International Members – All Greenkeeping Staff	£48.00

*The First Assistant is a post designed to recognise a third-in-charge where appropriate to the size of the club. In cases where the First Assistant is the recognised Deputy, the Deputy Course Manager/Deputy Head Greenkeeper subscription rate should apply.

Associate/Company Membership £50.00

Applicants for Associate/Company Membership should enclose a cheque made payable to BIGGA.

For details of Corporate Membership (10 or more) please contact Headquarters.



Dear Howard

I've just been looking back at last year and in August you will have been handling the BIGGA Pension Plan for a whole year, during that time, you must have encountered a wide variety of Greenkeeper's pension problems. Is that so?

Neil Thomas,
Executive Director, BIGGA

The letters shown below are typical of enquiries received either by mail or phone. Naturally we have altered locations and names to protect the privacy of greenkeepers.

Dear Neil

With reference to your recent note about the BIGGA Pension Plan, I have spent many hours with greenkeepers all over the UK in the last year and I hope I've been able to solve a few of their problems and give some good financial advice along the way. However, there are certain questions that crop up constantly, and if I may I'd like to give you an idea of what they are.

Howard Evans,
Special Advisor, BIGGA Pensions

Greenkeeper, West Midlands

Q. I was employed elsewhere before I became a greenkeeper, is there anything the Association can do to help me 'unlock' the previous Pension Plan arrangements I've left behind me?

A. Often it can benefit people to arrange for a transfer from an old Pension Scheme. This can all be done via the Association at Aldwark Manor, who simply ask me to ask the original pension provider for a transfer value to BIGGA Personal Pension Plan. When the transfer figure is provided, illustrations of future benefits can be provided to see if it is in an Association members' best interest to transfer out or not. BIGGA members have to do no more than contact BIGGA Headquarters and the rest is done for them. Incidentally, it usually turns out to be a good time to talk about pension and financial planning in general.

Assistant Greenkeeper, Kent

Q. I have just started in Greenkeeping. I am young and I might not even stay in Greenkeeping. So why should I start a BIGGA Pension Plan?

A. Everyone knows starting a Pension Plan early is the right thing to do, even though paying it can sometimes be painful! But remember payment can start from £22.50 per month and full benefits can be taken now from the age of 50. And if necessary the plan can be taken to other employment, if greenkeeping turns out to be not for you. Everyone knows that by starting a Personal Pension Plan early, you don't have the problems that many people have when they reach 40, and this is having to put much more into Pension Plans, to make up for those 'lost' years. And if you don't believe me, ask someone you know who is over 40!

Deputy Head Greenkeeper, Hampshire.

Q. My club is at last thinking about a Pension Scheme through the club. Should I join the club scheme or start my own?

A. The final benefits of all employee pension arrangements largely depend on the amount the employer and employee are prepared to pay. Now, although individual circumstances can differ, I would always advise Greenkeepers to at least consider starting their own BIGGA Personal Pension Plan as an alternative to entering a club scheme, because remember, club schemes, can only last the duration of Greenkeeper's employment at that club.

The most important thing to consider about a club scheme is the percentage of salary the club are prepared to put into a Greenkeeper's Pension Plan. This is often calculated as percentage of current salary - 5%, 7% or even 10%. Now they ke question for BIGGA members is this - Is it better for a Greenkeeper to be a member of a club scheme, or is it better for him to have his own BIGGA Personal Pension Plan which he can take onto other employment in later years, to which the club make a regular contribution. The advantage of the BIGGA Pension Plan here is that a Greenkeeper could well have just the one single Pension Plan arrangement for the whole of his working life taking it from one job to another, without all the problems of previous pension plans to deal with.

With a BIGGA Personal Pension Plan, the greenkeeper negotiates annually with his club, when salaries and other benefits are discussed, to decide just how much the club are going to regularly pay into his BIGGA Personal Pension Plan. And as I've said before, a BIGGA Personal Pension Plan always remains the Greenkeeper's own Personal Pension Plan to do with as he wishes, which is not so with a club scheme.

First Assistant Greenkeeper, Yorkshire

Q. My club does not provide me with a Pension Plan, so why should I bother to start one of my own?

A. In my experience, many clubs are a little slow in coming forward to provide Greenkeepers with a Pension Plan. So really, in this situation Greenkeepers have to look after themselves, but please let me assure you, it does make sense. In fact, it is probably one of the best forms of saving for the future that is around today, and what's more the Government give you 25% off your monthly payment when you pay it! Should your club decide to pay toward your Pension Planning at some time in the future, then BIGGA Pension Plans have a built-in ability for the club to add their contribution at a later date. So what is really happening is that Greenkeepers are taking out a BIGGA Pension Plan, and then when their next wage negotiations begin with their clubs, they are requesting the club to pay a percentage of their wage increase as a payment into the members already established BIGGA Pension Plan. Makes sense, doesn't it?

Course Manager, Surrey

Q. I'm in tied club accommodation and a little concerned for the future. I'm not sure what's the best thing to do. Is there any type of scheme available to BIGGA members like me which might help?

A. Yes, there is! In fact, there are a variety of arrangements available again depending on individual circumstances. The basic idea however, is to provide the member with an ability to assist in the purchase of acceptable property, either now or at some pre-planned time in the future. Tied accommodation can often be a 'double-edged' sword and the problem has to be discussed in some detail, at the right time, before sound advice can be given. Again, lets talk about it.

Head Greenkeeper, Scotland

Q. I am in a club scheme which I want to say in, but I think I should consider boosting more towards my pension. Can the Association help with advice here?

A. When a BIGGA member is in a club scheme he can usually use his club scheme to 'top-up' his pension, but it is well worth all Greenkeepers considering the BIGGA PSAVC or free-standing additional voluntary contribution plan. Yes, what a mouthful! The simple benefit of this for Greenkeepers is to spread his range of pension investment between the Club's fund and the Association's fund. This obviously makes sense on the basis of not keeping all your eggs in one basket! Full tax relief is given on all contributions to the BIGGA FSAVC, and the benefits become payable at the same time as the club scheme.

Dear Neil

Thank you for your best wishes. Naturally I am more than happy to advise on other financial matters. In fact greenkeeper's wives have often been very interested to hear what I have had to say to their husbands. Mortgages for house purchase, short-term savings plans for the creation of lump sums of money in the future and lump sum investment for capital growth - all these subjects have been discussed during the year. People seem to feel quite comfortable talking to me, and I am more than happy to talk to them.

Howard Evans,
Special Advisor, BIGGA Pensions

Dear Howard

Thank you Howard for enlightening me. May I wish you and your team very best wishes for your second year of activity with our members. In conclusion it seems that although greenkeepers' pensions are your main consideration when talking to BIGGA members, you're quite happy to advise on other financial matters as well, is that right?

Neil Thomas,
Executive Director, BIGGA



So for completely free pension and financial advice through BIGGA either call Sam or Debbie on 03743 581/2 at Aldwark Manor, or write to: Neil Thomas, Executive Director, BIGGA, BIGGA Pensions, Aldwark Manor, Aldwark, Aine, York, YO6 2NF.



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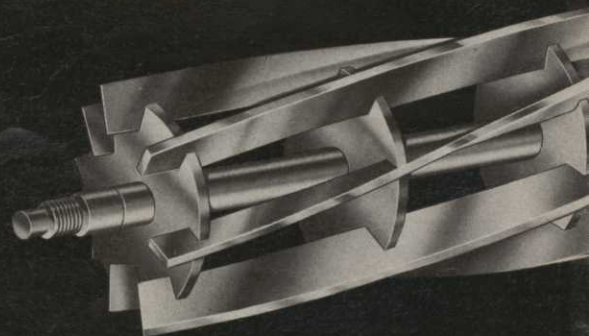
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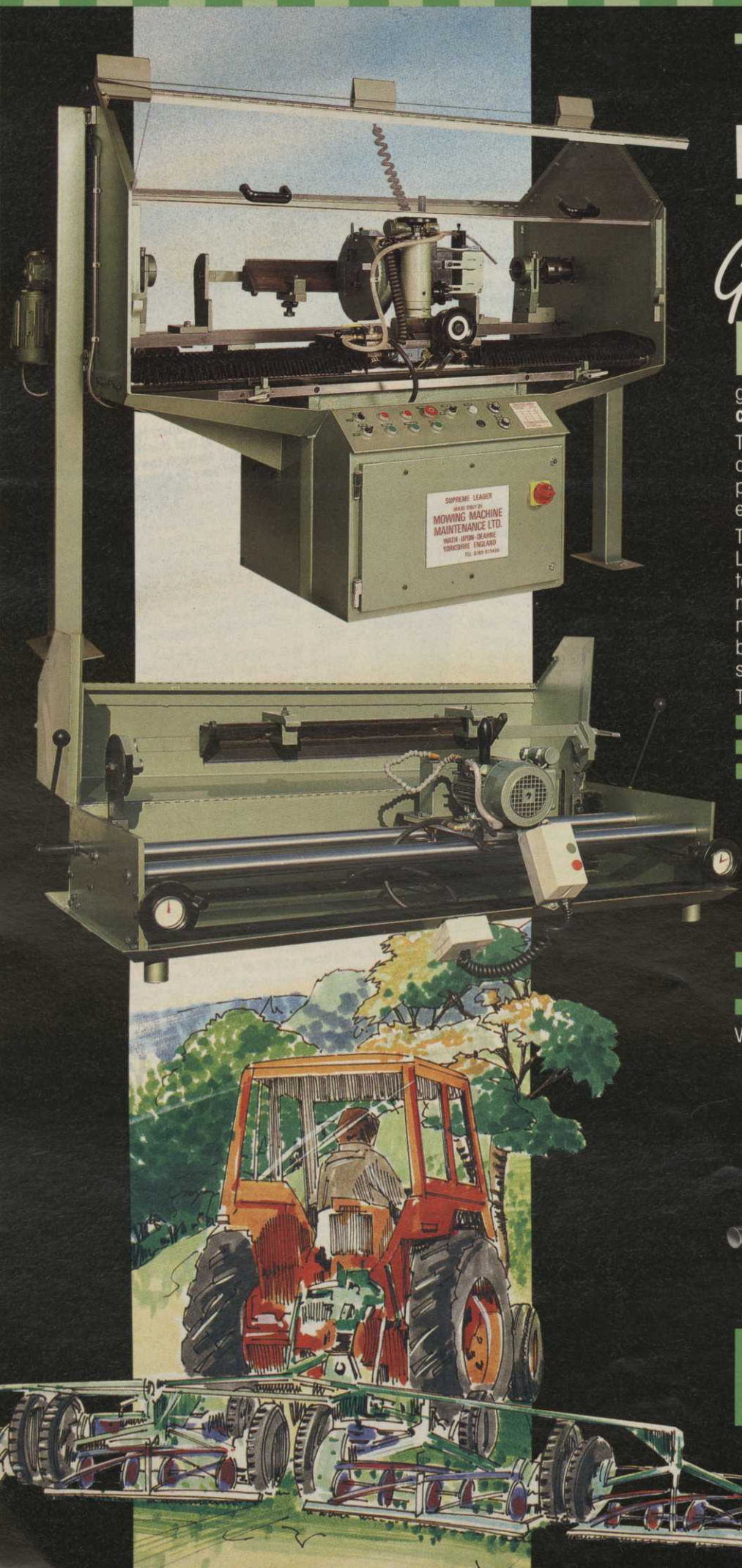
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Gear-driven pop up sprinklers at Myerscough College. Picture: John Hacker.

GOLF COURSE IRRIGATION

IS your irrigation system in danger of running out of water at critical periods during the summer? Are you using or indeed wasting valuable water reserves? Sensible economies can help before the possibility occurs of being faced with an embarrassing shortage.

Take action now if you are concerned about this dry spell and the possible implications for your course if it continues. Consider carefully which parts of the course can manage with limited or no irrigation if needs be, and, more importantly, consider which parts of the course such as tees, approaches and greens which are paramount and need irrigating.

Do you really need to irrigate aprons?

Make a simple two column list, of those areas needing and not needing irrigation. Take the decisions now before you are forced into taking even more drastic ones. Then concentrate on those you have placed in the column needing irrigation and stick to the plan until supplies are plentiful.

It is better to use a limited supply to properly irrigate the main areas rather than take the risk of reducing the application across the whole course hoping restrictions in supply will not materialise. Can you be sure what will happen in a few weeks time?

Those courses fitted with adjustable arc sprinklers such as the Rainbird Pop-Ups, may be best advised to adjust them now to a reduced arc to save

water! Do remember of course that a reduced watering arc will also require reduced station timing accordingly to maintain the application rate per cycle to that required. If you do not adjust the station timing you will or may be applying too much water per cycle and will be wasting it.

Your local Wright Rain/Cameron branch or your installer will be pleased to provide assistance and guidance on this problem.

Actions now may well ensure a full season irrigation and consistent playing areas rather than drought scorched playing surfaces.

GOLF COURSE IRRIGATION

John Hacker, Senior Lecturer, Lancashire College of Agriculture and Horticulture and

Mike Harbridge, Consultant Agronomist, Professional Sportsturf Design (NW) Ltd.

PERHAPS the last thing you will be thinking about at this time of year is your irrigation needs for the summer. However, after last summer's drought, there may be more than one Greenkeeper wondering what might have been if only their course had automatic irrigation.

For some reason, irrigation on golf courses has become a contentious issue. This to me is rather surprising in a country where for much of the year it literally chucks it down. I have yet to hear of someone advising Greenkeepers to rush out and cover a green during a

rainstorm in the hope that, by reducing moisture levels, thatch will be prevented from building up.

Yet great emphasis is often placed on precise water application and overapplying, even the smallest amount, is supposedly going to do untold damage. Why then is there so much controversy about irrigation in a country where many areas, especially in the North and West, rarely need to apply water for longer than one month out of twelve.

The answer probably is that there has been little or no real research on golf course irrigation in the UK and much of the information given is based on personal preferences.

So before the mowing rush of summer starts, why don't we have a closer look at some of the aspects which affect irrigation needs in this country. Mike Harbridge and I will take a look at water and soils, water and grass growth and estimating water needs.

PART 1: WATER AND SOILS

Water -

Where does it come from?

Water is to be found all around us; in the air as water

vapour, in the soil, below the soil in the mother rock and, of course, in the rivers, lakes and oceans of the world. As most would expect, 97% of all water on the Earth is to be found in the oceans and of the remaining 3% to be found in or on continents, three quarters of it is frozen in ice sheets and glaciers. Only 0.4% of continental water exists in lakes, rivers and soil, so, however wet your golf course is, it contains only a tiny proportion of the world's water.

Due to the heating of the sun, water is moved through these various areas. Evaporation from ground water and transpiration from plants collectively known as evapotranspiration, leads to water vapour rising from the land and oceans before being returned by rainfall (precipitation). This cyclic movement of water is known as the Hydrological Cycle.

These natural water movements not only allow water to be moved from valleys and water bodies to the high ground, but also perform important functions, such as cooling, for the plant. The water

Cont. on Page 12

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IRRIGATION

Cont. from Page 11

available to the grass plant is constantly changing with moisture inputs coming from precipitation from the air and capillary flow from the soil.

In drought conditions this is often supplemented by water from irrigation systems. Moisture losses from golf courses occur via evapotranspiration, drainage and surface runoff.

Reducing water losses

Water loss via drainage can be minimised by constructing greens with water retaining features such as a capillary break (U.S.G.A. green) or an impermeable membrane below the rootzone (Cell System green). Surface runoff from greens can also be reduced by having a sandy rootzone with a high infiltration rate.

This enables the water to go through the green and into the drainage pipes beneath making it available to the grass roots as it passes through. Runoff will also be reduced if thatch levels are kept to a minimum.

The rate and amount of

evapotranspiration however, is determined by a number of factors some of which are beyond the Greenkeepers control. These factors include:

- Relative Humidity
- Temperature
- Wind Speed
- Amount of Sunshine
- Soil Moisture Tension

Therefore, evapotranspiration rates are highest on hot, windy, bright days on soils which have sufficient available water and lowest on cool, dull, still days on dry soils.

Water –

Why do plants need it?

Millions of years ago life began in a water habitat and since that time both have been inextricably bound together. Active plant protoplasm contains 85-90% water and water is essential for photosynthesis, the means by which plants produce food and grow.

Water is also necessary for the formation, solution, and transportation of many substances including plant nutrients and sugars. It is also the medium in which all cellular reactions occur. So by now you will have got the vital point – take away water and you take away life.

Where do plants get water from?

Some plants, living in the humid tropical rainforests are able to absorb moisture through their leaves and stems. However, most plant leaves and stems are coated with substances which prevent this because the biggest problem is usually water loss in most climates.

Plants regulate water loss through holes in the leaves called stomates which are opened and closed by various stimuli. For most plants though, the majority of water used is taken up from the soil through their roots.

So the soil is very important in holding water for the grass plant to use. Water is held on the surface of soil particles by surface tension and in vapour form in the soil pores (voids) between them. After rainfall or irrigation the soil pores (voids) will become full of water for a time and the soil will be fully saturated. As gravity moves the excess water downwards, the soil will be left at 'field capacity' – that being the maximum amount of water it

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Cont. on Page 13

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IRRIGATION

Continued from page 12.

can hold against gravity. Once all gravitational water has drained the plant has to actively remove water from the soil.

This the plant can do until the surface tension force holding the water on the soil becomes greater than the force the root can exert to remove the water.

Water which can be used by the plant in this way is known as 'available water' while that left on the soil particle which is not able to be used by the plant is known as 'unavailable' water.

Plants can make use of free water as it drains away or 'available water' in the soil. The amount of available soil water will vary depending on soil texture with clay containing approximately 14% available water, very fine sandy loam 23% and coarse sand only 8%. This is because the smaller the soil particles the greater the surface area on which water can be held.

Clays have very small particles (less than 0.002mm) while sands have much larger particles (0.063 - 1mm). It would seem then that clays



The authors - John Hacker, left, and Mike Harbridge.

should hold the greatest amount of water and they generally do, but much of it is unavailable because of surface tension. So the largest amounts of 'available water' are generally found in sandy loam soils.

So a heavy clay loam green will hold a lot of water although

much of it will not be available to the grass plant. However, because of heavy use and soil type, the soil may be quite compact and much of the rain or irrigation water may run off the surface rather than go into the soil. Sand greens, on the other hand, will naturally retain much less water than clay

loams but the water which is applied will, unless there is excessive thatch, generally enter the rootzone and be available for plant growth.

This is why green constructions based on sand usually have irrigation and incorporate some form of water retaining measure such as a perched water table or plastic barrier to prevent the water from quickly draining away. For although sand based greens drain quickly in wet conditions they can quickly drought out during dry spells.

- The Lancashire College of Agriculture and Horticulture offers courses in Greenkeeping and Turf Management at all levels including a full time BTEC National Diploma in Turf Science and Sportsground Management.
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Continued on page 15.

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The Berkshire Golf Club**



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**Steve Tingley - Head Groundsman
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FURTHER READING ON IRRIGATION

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IRRIGATION, TIME TO RE-THINK?

DEMAND for golf course watering systems in this country has never been greater than it is today. One obvious reason behind this statement is the dramatic change which we have experienced with our weather patterns.

The long dry months of 1989 plus a lack of consistent rainfall so far this year have served to compound a situation where, suddenly, it seems that every other golf club in the length and breadth of the land has identified the need for automatic watering.

This is causing problems. There are just not enough skilled irrigation engineers around to cope with the tremendous upsurge in demand.

The reason for this revolves around the basic economics of running a business. Most irrigation companies have, over the years, structured their staffing levels to deal with the average needs as dictated to them by the golf market.

"We cannot find additional engineers by simply snapping our fingers - it takes time to

train people properly" says one leading irrigation distributor.

Herein lies the crux of the matter. Irrigation systems we know them today have been available in this country for ten to fifteen years but with exceptions, a large number of clubs have not really given the subject enough thought. Nor have they anticipated the growth of the game or the wear and tear brought about by the big increase in traffic.

Past experience shows that green committees have tended to place their priorities in other directions. Extending or rebuilding the clubhouse enlarging car parking facilities or even re-shaping courses are typical examples of why the purchase of an irrigation system has been shelved . . .

All of this is understandable but it does underwrite the notion that keeping a golf course in good condition is just a question of cutting the grass and fertilising the greens.

Similarly, clubs with enough foresight to actually purchase an irrigation system have quite often put their investment at risk by not ensuring that their system was maintained properly. Unlike cars, which we accept require servicing at pre-determined intervals, irrigation systems are expected to work efficiently at the press of a button - in spite of being neglected!

Now as our weather continues to charge it seems apposite to suggest that golf clubs will have, of necessity, to re-think their priorities relating to automatic watering.

First and foremost, an irrigation system should be quantified as an insurance against the advent of dry weather.

Secondly but equally important, an irrigation system should be considered as an indispensable tool providing greenkeepers and greenkeeping staff with a vitally important element essential to their task of maintaining a course in good condition.

Given that these recommendations are taken up it is also pertinent to suggest that one member of a club's greenkeeping team be given the specific job of looking after the system and dealing with relatively simple cases of problem solving.

This has already happened at The Belfry and at the Monte Carlo Golf Club where irrigation is given high profile.

In both cases, day to day maintenance is looked after in-house but when major assistance is required, the ap-

Cont on page 16.

Q A YORK, PARKER & MARTIN

GOLF COURSE OR LANDSCAPE

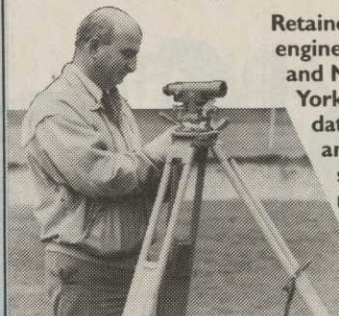
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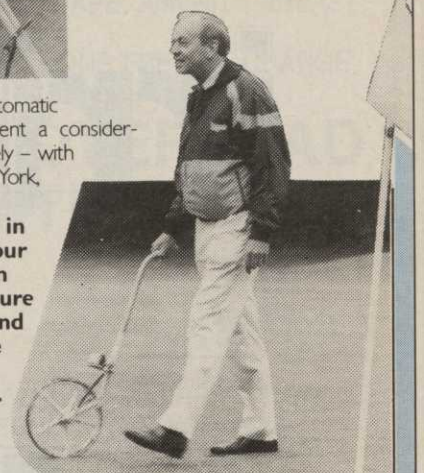


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IRRIGATION

Cont from page 15.

appropriate distributor/installer is called in to add his weight and experience to resolve the situation.

This type of end user involvement is becoming more important as sophisticated irrigation equipment like the high tech, computerised Toro Network 8000 – which calculated ET rates every 24 hours and virtually eliminates over or under watering – now being installed at Wentworth, is introduced into the greenkeepers working life.

Training for greenkeeping staff is usually provided when a system is first installed on a golf course but this needs to be broadened by further education.

The British Turf and Landscape Irrigation Association help in this respect by running courses and so too, do Toro distributors, Turf Irrigation Services of Sandbach, who have recently completed yet another round of bi-annual, one-day irrigation maintenance 'teach-ins' aimed exclusively at those responsible for operating automatic watering systems.

Perhaps this is food for thought for all of us but mean-



Clay soil . . . holds a lot of water and cracks when dry. Photo: John Hacker.

while, don't beat your irrigation supplier over the head because your club's greens are un-seasonally fast. The fact that the greens committee have suddenly voted money for irrigation is irrelevant, it should have happened last year or the year before that...

CEDRIC JOHNS

NORTH STAFFS IRRIGATION COMPANY

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Over recent years many changes have occurred in the irrigation industry such as the introduction of the two wire control system as opposed to the earlier multi-wire arrangement. More golf clubs now opt for tee watering and many require additional water holding capacity for their courses. North Staffs Irrigation has worked hard to keep abreast of these changes and is able to offer a package incorporating all the most modern equipment to irrigate a complete golf course automatically. The company is also happy to deal with any one aspect of a watering system and indeed the engineers are often called upon to advise a Club about a water pumping problem or the inclusion of automatic control for tee watering etc.

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Cont. on Page 18

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IRRIGATION

Cont. from Page 16

CAPPER P-C

CAPPER P-C was formed as a result of a merger between Capper Plastics and the distribution companies of Plastic Constructions, including Industrias, Stenplas and Plastic Fittings. They are now the largest specialist distributors of thermoplastic pipework products in the UK.

Capper P-C offer comprehensive stocks of an extensive range of thermoplastic pipework products, both

pressure and non-pressure, for general industry and the building and construction trades: Stocks are available in depth at all of their strategically located branches. Assessed quality stockist status is expected shortly.

Service starts with people. The staff at Capper P-C are well trained and motivated to respond to the needs of today's business imperatives. Modern computer systems at every branch mean instant response to all enquiries.

Capper P-C are authorised distributors for the leading British manufacturers of thermoplastic pipes, valves and fittings: In addition, certain products not economically manufactured in the UK are imported from other EC countries. Products handled cover all the commonly used materials such as uPVC, ABS, PP, MDPE, cPVC and PVDF and are offered to all the generally recognised international standards.

The sales people are familiar with all the materials in everyday use and can offer technical advice about material selection and installation problems based on long experience.

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MAYFIVE Limited, the Whitchurch, Shropshire based supplier of the most comprehensive range of trenching and associated equipment and spares, can offer unmatched experience and advice to the water and allied industries and services.

The ever increasing use of polyethylene pipe for water services, bought about because of the speed and simplicity with which it can be laid directly into the trench, means that Mayfive chain trenchers are ideal for use by contractors and water authorities.

The Mayfive range of pedestrian, ride-on and track mounted trenchers rated from 12-750 hp, include units suitable for the vast majority of water and other utility installations.

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FLANDERBLADE Limited are a small independent company who since its beginning have tried to give a personal service to golf clubs.

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available - will continue its rapid growth to a position of dominance in the market.

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PAR 4

AFTER nearly ten years in the business Par 4 Irrigation Systems Service have outgrown their premises at Ash Industrial Estate. Mrs Linda Simms said the move is due to the company's expansion.

You can now find them at Camphill Close, Dallamires Lane, Ripon, from where they will continue to serve the North and North East of England as Area dealers for Toro Irrigation Equipment.

PAR 4 Irrigation System Service

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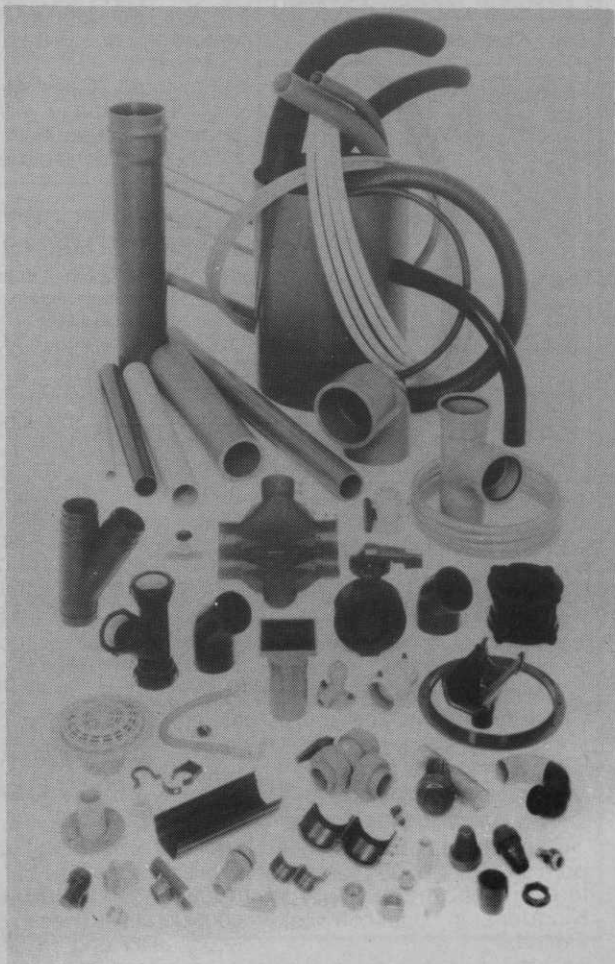
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GLASGOW	041 778 5001
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WARRINGTON	0925 814300
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BIRMINGHAM	021 772 4226
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219 220

MOVEMENTS & MURMURINGS

RANSOMES ANNOUNCE NEW APPOINTMENTS

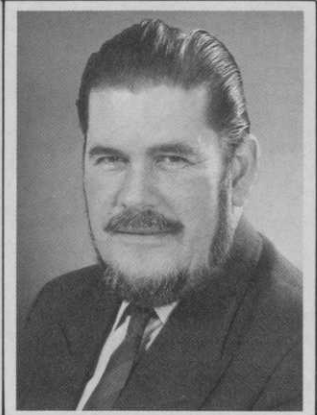
RANSOMES Sims & Jefferies Ltd has made two appointments as part of the group's continued expansion.

Gerry Shattock has been made Marketing Manager, a newly-created position that emphasises Ransomes' commitment to understanding customers' needs.

He has joined Ransomes at their Ipswich headquarters from the Lawson Mardon group, the Anglo Canadian packaging manufacturer, where he held various sales and marketing positions. Gerry has a BSc (Hons) in Chemistry and a full time MBA in Marketing from City University Business School.



Gerry Shattock

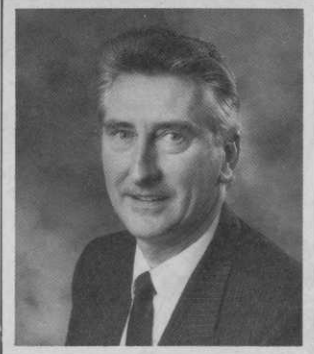


Brian Hazelden

Brian Hazelden has joined Ransomes as Industrial Sales Manager Cushman Vehicles. The appointment follows the recent acquisition of Cushman Inc of Lincoln, Nebraska, USA.

SISIS IN THE STATES

SISIS Equipment are now in the United States! The company has incorporated their first business interest outside the United Kingdom in Jacksonville, Florida.



Roger Barnes . . . Huxley's new Field Sales Manager.



Martin Cooke . . . Huxley's new General Sales Manager.

HUXLEYS NEW SALES APPOINTMENTS

HUXLEYS Grass Machinery has announced two staff appointments at its headquarters in New Alresford, Hampshire.

Responsibility for all UK and export sales of Huxley-manufactured and distributed equipment will be taken on by Martin Cooke, 45, who has been appointed General Sales Manager.

Reporting to company director, Paul Huxley, Martin will be administering the distribution of turf and grounds maintenance equipment, and its vital associated sales support, to Huxleys' direct customers in the South of England as well as to the company's appointed dealers throughout the remainder of Britain and overseas.

Previously Sales Manager for the company within its direct sales area, Martin's additional responsibilities will

allow Paul Huxley to devote more time to developing the business and its future strategies in both existing and new markets. Martin Cooke joined Huxleys Grass Machinery in 1983.

The second new appointment sees Roger Barnes, 48, move from the position of Area Sales Manager to Field Sales Manager for the company.

Working in conjunction with Martin Cooke, Roger will be responsible for optimising the awareness, promotion and sale of Huxley products in all parts of Britain not covered by the company's own direct sales team in the South of England.

Roger brings 30 years' experience of the professional grounds maintenance market to his new position having worked for SISIS and Hayter prior to joining Huxleys Grass Machinery.

SENIOR PRODUCTION APPOINTMENTS AT JOHNSONS SEEDS

TO meet the needs created by a continuing expansion of production operations, Johnson Seeds of Boston, Lincolnshire have announced the following two senior appointments.

Michael Goodliffe, production director will become production and corporate service director and Roy King, processing manager will be promoted to production manager. Both appointments take effect on July 1, 1990.

Michael Goodliffe joined Johnsons in 1964 as production manager. He was appointed a divisional director in 1981 and became a main board director in January last year.

He will continue to have overall responsibility for the production division but in addition will handle various legal considerations (Health & Safety, COSHH and BASIS) and

quality standards (BS 5750), with which the company has to comply.

Roy King joined in 1974 as a potential supervisor after four years in the regular Army. He was promoted to processing supervisor in 1978 and then processing manager in 1985. In his new position he will be responsible for the planning, organisation and running of all aspects of the production division, reporting to Michael Goodliffe.

NEW CHAIRMAN FOR NTC

JON Bauer, senior assistant director, (open spaces and amenities) for Sheffield City Council has been elected Chairman of the National Turfgrass Council.

Jon, who has been the ILAM representative on the NTC, feels that his election as Chairman is an indication of how the turfgrass industry appreciates the involvement of the Institute.

MAJOR APPOINTMENTS AT COLLINGTREE PARK

COLLINGTREE Park, the Northamptonshire development's major feature is an 18-hole course designed by US Champion golfer Johnny Miller.

John Girling is Operations Manager, responsible for co-ordinating and overseeing the smooth-running of the complex. He has a wealth of managerial experience, having been a store director with Debenhams for 26 years.

John's wife Nina becomes Hospitality Manager, with responsibility for the smooth-running of Collingtree's bars and top-quality restaurant.

Nina has an extensive background in the catering industry and interior design. As well as owning and running a delicatessen shop in Northampton's College Street Mews, she also ran her own wine bar and restaurant in the Cotswolds for several years.



Peter Jones . . . Collingtree Park's Course Manager

Liz McQuillan (28) is responsible for sales and marketing at Collingtree. She has an extensive knowledge of the leisure industry, gained through hotel management and marketing training. Liz is actively interested in sport and is a Lawn Tennis Association coach and qualified aerobic instructor.

Course Manager Peter Jones (32) has been with Collingtree Park since the exclusive golf course was nothing more than meadowland. Peter has 15 years of extensive experience in both the construction and greenkeeping of golf courses. His previous work included the remodelling of nine of the holes on the Dukes Course at Woburn.

Wayne Smith (20) joins as Assistant Golf Professional. Wayne worked at Minchinhampton Golf Course for a time before spending a year working on a course near Copenhagen. He comes to Collingtree from Henley Golf Club.

AROUND THE GREEN

SOUTH WALES SECTION

RECENT Appointments: Colin Reilly recently took over at Pennard Golf Club. He was first assistant at Royal Birkdale before the trip to Wales. Huw Thomas took over from John Hopkins at Pontardawe Golf Club. He is a local lad who used to work for the council.

Another council worker who has taken over in the private sector is David Waters, who used to work for Newport Borough Council at Cearleon (this is where I came from and since my leaving there has been four others left to join the private clubs). David has taken over at Pontnewydd Golf Club in Cwmbran.

Huw Morgan recently took over at Southerdown Golf Club due to the early retirement of John Walsh due to illness. I wish John all the best for the future and his wife who he married in October, and I hope they will be very happy together in whatever they will be doing in the future.

I would pass on our best wishes to all the above in their new positions.

On Wednesday, April 11 we held our spring meeting at Wenvoe Castle Golf Club, where we were treated to some excellent golf and service from the indoor staff.

The weather was good with the rain staying away long enough for everyone to enjoy the day. There was a good turnout once again and I would like to thank all those who sent their deposits and hope that I will receive even more for the next competition.

The competition was a good event with the home greenkeeper using his local knowledge to good effect dropping only 15 shots to par in 27 holes.

Winner of the Cardiff Cup and a watch donated from the funds was Laurence Walter with a score of 99. Second was Les Hallett, who won a golf trolley with a score of 108. Third was Lyndon Williams with a score of 109, he won a bottle of whisky donated by Browns of Bristol.

Best gross was won by Mike Jones with a score of 120 and he won a bottle of whisky donated by Avoncrop of Bristol. A raffle was held to help swell the funds and I would thank everybody for buying their tickets.

Winner of a bottle of sherry donated by the administrator was Tony Millar. Winner of a Iseki set of overalls was Steven Evans, these were donated by the local Iseki dealer Mr Chris



At a presentation at Long Ashton Golf Club staff party, Association Chairman Ivor Scoones is pictured, left, handing over gifts to Ray Burniston on behalf of club staff. Ray has left the Club after 18 years, latterly as managing secretary, to become Association secretary.

Hopkins. Winner of a bodywarmer donated by Peter Hampton was John Carter. Three golf balls were each won by Idwal Morris, Kirk Stevenson, Huw Morgan and Mike Norfolk. These were donated from the funds.

We would like to thank the committee and members of Wenvoe Castle for giving us courtesy for the day on the course and in the clubhouse. Thanks Tyron and his staff for putting the course in such good condition considering the dry conditions so early in the season. Our gratitude also goes to the stewardess and her staff for looking after us throughout the day.

The 18 holes played in the afternoon was the section's Iseki qualifier. And the following people will represent the section in the regional competition at Yeovil Golf Club on June 14. M. Jones, H. Morgan, J. Morris, J. Carter, P. Swain, L. Walter, M. Stokes, T. King, D. Jones, T. Garland, R. Kitcher, L. Williams, L. Hallett, B. Price and M. Norfolk. Reserve T. Thompson.

G. Cox and N. Owens were disqualified because they had not paid their subscriptions for 1990. Therefore their places went to the reserves P. Swain and M. Norfolk.

PHILLIP SWAIN

SOUTH WEST SECTION

THE sun always shines on the righteous - well nearly always, it certainly did at Long Ashton on April 26th for the S.W. Iseki qualifier.

I would have thought that more than 13 out of 94 could have turned up, never, mind at least we all qualified for the Regional Final.

The course was in first rate early condition, a true credit to

our National Chairman Ivor Scoones and his hard working staff. 1st R. Moffat 83:12:71 on last 9; 2nd J. Kane 77:6:71; 3rd P. Worster 79:3:76; 4th L. Millar 81:4:77.

With many thanks to Monro's, Browns, Avoncrop and Peter Hampton for the prizes.

The spring one day FEPA course had to be cancelled due to a clash of dates. Further

days can be organised in the autumn, please advise numbers to me as soon as possible.

In the meantime I'll look forward to welcoming you all to Lilley Brook on July 11 for the 18 hole summer tournament. (I expect we'll be Verti Draining the greens or something). If you all promise to turn up. I'll promise to leave the Verti Draining and top dressing until the next day (Lady Captains Day).

Finally condolences to all at Filton Golf Club on the sudden death of Andrew Wilson, deputy head greenkeeper, after a short illness. Our sympathy in particular to his widow Lisa
PAUL WORSTER

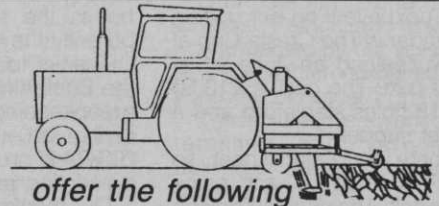
SURREY SECTION

THERE may be apathy around, but it seems we are still attracting applications for membership from young greenkeepers.

At the last count Surrey had 266 members. We hope to see as many of you as possible at our events through the year, as

Cont. on Page 22

Aeration & Drainage Services



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1. AERATION

Verti Drain hire/Twoose Turf Conditioner & Robin Dagger - we are, at present running 4 Verti Drains (various sizes) and can offer tine sizes from 1/2" diameter by 12" long at 2 inch centres, up to 1" diameter by 16" long at 4 inch centres. Also available, Hollow tines. Therefore we can cater for any Verti Draining need such as Greens, Tees and Fairways, etc.

Twoose - this machine operates by way of seven vibrating blades which are pulled through the ground in a similar fashion to small mole ploughs, therefore relieving compaction and improving surface drainage.

Robin Dagger - This very light and portable machine injects oxygen into the soil and around the roots.

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Wizz Wheel Trencher + Backfill sand/gravel hopper this is to be available on a weekly rate (min. hire 3 days) should you just require trenches excavated to be backfilled by yourselves, or, quotations can be submitted for complete sand slitting/drainage programmes including 'Hitek' stripdrain.

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AROUND THE GREEN

Cont. from Page 21

it is only with continued support that we can progress.

Surrey has a new section secretary this month in the shape of Derek Walder of Reigate Heath who has taken over the hot seat from Mik Wells.

I'll publish his number etc next month after he's had time to find his way around the job a bit.

A quick mention that the gentleman's Dinner at Walton Heath was attended by 144 people, of whom 125 sat down to a marvellous meal and saw Jack McMillan presented with a statuette by the South Coast region, as a token of all our appreciation of sterling work in furthering the cause of greenkeepers and greenkeeping.

Also at Walton Heath, the spring meeting was a great success. Our thanks go to ICI, the main sponsor, and to Parkers, the local Iseki dealer along with all our other trade friends who help with prizes etc. The winners of those prizes as follows: 1st I. Hogg 138 net; 2nd D. Woodward 139 net; 3rd T. Hall, 140 net; 4th S. Haines 141 net.

This was an Iseki regional qualifying event, and the final takes place at Sudbury on July 4. More news as it happens! The next event on our golfing calendar is The Cresta Cup at New Zealand on June 11 at 3.30 p.m. The cost is £12.50 for 18 holes stableford and a buffet supper.

There is no start sheet, so turn up, team up, and enjoy your golf! The annual England v Scotland match is to be played at Hindhead on August 13. Captains are Clive Osgood for England and Stuart Macmillan for Scotland.

Talking of Hindhead, a few changes in personnel. Firstly Bobby Macmillan has left to

join Orchard Lea Park in Bath as their new Course Manager. Filling his shoes at Hindhead is Tony Miley, Bobby's, former deputy.

Two more things. One, the new uniform styles will be on display and available to purchase at The Cresta Cup. Secondly, the committee would like your views, in writing, on the Master Greenkeepers Certificate. These may be posted to me at: The Bungalow, Hankley Common Golf Club, Tilford Road, Tilford, Farnham, Surrey GU10 2DD. That's all for now, keep me posted of your news etc on 025 125 4287.

PHIL BALDOCK

NORTH EAST SECTION

ON April 26 we made our first visit to Alnmouth G.C. to play the spring competition. The weather was perfect and made a change of not playing in the wind that's been hampering this forgotten part of England for the past three months.

Thanks are in order to the committee of Alnmouth for the courtesy of use of course and to the steward for meals provided. Thanks also to the greenkeeping staff for the fine condition of the course. We were surprised to find not only were preferred lies on fairways but in the semi rough! Apparently they always do this.

Thanks to Mr Barry Poole, the Publishing Director of the greenkeeping magazine for giving an update on how BIGGA is progressing and for presenting prizes.

Our thanks go to the sponsors: Stewart's, Ryton Gravel Co., Bland Short, and Turfcare Supplies I shudder to think how we would survive without these four companies who help us out immensely, and also to Fewsters, Hayter, Patinsons and finally R. Aitken.

Results: Best gross, D. Baxter - Newbiggin G.C. 73. Best Nett: N. Parkin - Hexham G.C. 76-9 = 67. Ass. Cup. M. Harvey - Tynemouth G.C. 94-24 = 70. Leading Scores: B. Udberg, Tynemouth G.C. 84-15 = 69. G. Gainford, Prudhoe G.C. 83-13 = 70. G. Richardson, Whickham G.C. 76-6 = 70. K. Rutherford, City of Newcastle, 92-20 = 72. B. Weddell, Alnmouth G.C. 83-10 = 73.

Iseki Qualifiers: 0-9 D. Baxter (1), D. Jennings (2), G. Richardson (6), N. Parkin (9). 10-18 B. Udberg (15), G. Gainford (13), B. Weddell (10), A. Fiddes (16). 19-28 M. Harvey (24), K. Rutherford (20), M. Rutherford (28), G. Ripa (20).

JIMMY RICHARDSON

DEVON AND CORNWALL SECTION

THIS year's guest day meeting was held at Launceston Golf Club on Wednesday April 3. With the weather being more like a winter's day 26 pairs of hardy souls ventured out on to the course to compete for the best combined stableford scores.

The prizes were kindly donated by Devon Garden Machinery, Parkins and Ed Simcox of Jacobsen.

1st A. Cann, 37pts and I. Downing 30 pts. Total 67pts (Bude). 2nd E. Barber 30 pts and P. Pearman 36 pts. Total 66 points (Palace Hotel). 3rd G. Child 33 pts and A. Chaundry 31pts. Total 64 pts (Churston).

Our thanks must go to George Bailey and his greenstaff for the superb condition of this course also to Launceston Golf Club for allowing the section use of their club and course.

With this being our last meeting until the autumn I would like to wish you all a successful season and look forward to seeing you all next autumn.

RICHARD WHYMAN

LONDON SECTION

FIRST of all the London Section sends its regards and best wishes to Jim Cameron who takes a new post as Head Greenkeeper at Tenderton Golf Club in Kent.

Also congratulations to Christopher Granestock who replaces Jim at Gryms Dyke Golf Club as Head Greenkeeper. Talking of Gryms Dyke our spring meeting was held at the club on April 28, although the day was poorly attended those who did play enjoyed themselves, and some good scores were recorded.

The Iseki Tournament qualifying competition was played in the morning and the qualifiers and scores were as follows:

Category 0-9 handicap: 1st Darren Burdis, Porters Park, net 68 off 9 handicap. 2nd Craig Handyside, Hadley Wood, net 70 off 4 handicap. 3rd Gareth Roberts, North Middlesex, net 72 off 5 handicap. 4th Martin Smith, Porters Park, net 76 off 5 handicap.

Category 10-18 handicap: 1st Chris Carpenter, Porters Park, net 64 off 13 handicap. 2nd Fred Read, West Herts, net 69 off 16 handicap. 3rd Andrew Phillips, Hadley Wood, net 70 off 11 handicap. 4th Robert Phillips, Porters Park, net 72 off 12 handicap.

Category 19-28 handicap: 1st Barry Moggridge, Brookmans Park, net 63 off 20 handicap. 2nd Robert Rendle, Hatfield & London, net 68 off 19 handicap. 3rd Terry Colville, North Middlesex, net 70 off 24 handicap. 4th Brian Kelly, Hainault Forest net 73 off 21 handicap.

Well done to all the qualifiers and good luck at Sudbury in the South East region final.

Let's see a good contingent of our lads in the national final at Fulford later in the year. The

Cont. on Page 23

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AROUND THE GREEN

Cont. from Page 22

afternoon competition was a stableford and Chris Carpenter again came home ahead of the field with 40 points followed closely behind by David Clugie from Muswell Hill with 39 points. Our section has had an influx of new members and we welcome them.

New members: Terry Colville, North Middlesex; Doug Smith, Wanstead; Norman Corpe Hatfield & London; Steve Mullet, Sandy Lodge; Peter Moss, Stapleford Abbots; Steve Godfrey, Hatfield & London; Jeff Fowker, Sandy Lodge; Steven Hesk, Beckhampstead; Ian Healy, Manor of Grove; Harry Wade, Elstree; Mick Bath, Elstree; James Wright, Pinner Hill; Rob Mille, Manor of Grove; Lee Durkley, Pinner Hill; N. Coward, Hanbury Manor; Keith Knowles, Unattached; Lorenzo Geraghty, London Borough of Brent; Gary Standing, Lanbury Manor; Arthur Baker, Borough of Broxbourne; Stuart Green, Bushey Hall; Chris Meadows, Regents Park Golf School.

Let's see some of you at our various functions. It's your association. So use it!

If anybody has something interesting to tell then phone me on 081 441 3216.

ANDREW PHILLIPS

AYRSHIRE SECTION

IT'S been all go this past few weeks, what with trying to fight the usual Ayrshire spring weather and the hordes of hackers digging their clubs out of the attic at the first hint of sunshine.

It's very difficult to get the immediate perfect conditions every golfer seems to expect at the start of each season.

I had a most enjoyable visit

to London early in April for the BIGGA conference. The speakers really sparked off some great discussions. It's a pity the food didn't quite match up, but I suppose we can't have everything. After seeing the drought conditions down there, I'm not sure if I prefer too much rain or not enough.

It would be nice to be able to share it.

Talking about London, sincere congratulations to Bobby Bennett from the Glasgow Golf Club who has landed the task of looking after Sunningdale in the footsteps of Jack McMillan. Knowing Bobby, I'm sure he will make a great job of it.

Our spring outing was a great success. It makes a change to hear complaints of too much heat, rather than the cold and rain but temperatures were up around 80°F all day giving rise to the dilemma of whether to pour the evening beer over the throat or over the poor feet.

Our thanks go to Kyle and Carrick District Council for giving the use of their Lochgreen and Darley courses for the outing, both of which were in excellent condition due to the efforts of Head Greenkeeper Brian Finlayson and Assistants Billy Fletcher and Pat Power.

In fact Brian and Billy both suffered for their efforts, Billy having to retire with sunstroke after eight holes in the afternoon, and Brian retiring at 12.45 a.m. for some reason he can't quite remember.

Just one last thing, before the outing results, please, please can I have some news from around the area to give me some help with this column.

It is to keep you all informed, and if I don't know, I can't write it here. Telephone 0292 70929 any lunchtime or late evening.

Outing results: Three Man Scramble on Darley: Par 71

6450 yds Chic White (1), Kirk Campbell (4), Billy Fletcher (14). 57 Gross (this is '14' under par, who says greenkeepers can't play golf).

Singles on Lochgreen - par 73 - 7050 yards. Scratch - Chich White, Largs Kelburn 77. 1st Class. 1st Duncan Gray, Kyle-Carrick 81-8-73; 2nd Alan Forest, Western Gailes, 79-4-75.

2nd Class: 1st Gordon Heron, Turnberry, 92-16-76. 2nd Sid Mercer, Kelburn, 92-15-77. 3rd Class: 1st Jim Paton, West Kilbride, 96-19-77. 2nd Martin Lothian, Turnberry, 111-20-91. New Member, Gary Bryden, Turnberry, 79 scratch. Trade, Robert Bruce, Stewarts 93-14-79.

JIM WYLIE

EAST ANGLIAN SECTION

OUR first tournament of the '90's was at Felixstowe Ferry on April 10.

A dry but cloudy day saw 40+ going in roughly the same direction.

George Newson had the course in its usual pristine condition. It was the first round of the Iseki Tournament but as there wasn't a representative of the company to be found we played for the Rushbrook Salver and guess who won it? Hot Toddy Huddleston, 35pts and no passes!

First and second in the 0-9 section were Alan Carter and Peter Howard, 34 and 33 pts.

First and second in the 10-18 section were Dave Wells and Sam Sylvester 35 and 33 pts. Mr B. Millhard with 34 pts won the guest prize.

I have a list of reserves for the tournament.

B. Cook, G. Newson, Ken Moyce, Doug Storey, Dave Cole, Arnold Mynot, Ernie Hart, Steve Denton, Steve Freestone, Tony Tyrell and Lyndon Upham.

Our thanks to Mr Jim Cowan the club captain and members of Felixstowe Ferry for allowing us courtesy of the course and making it a memorable day.

Thanks also to our trade members for valued support and prizes they were as follows: Rigby Taylor, Pattisons, SISIS, Town and Country, Rushbrook's, Toro and Colliers.

MICK LATHROPE

EAST OF ENGLAND SECTION

OUR first meeting of 1990 was held on April 5 at Belton Park G.C. I am eternally grateful to my own captain and committee for their help on this occasion.

The lecture was delivered by Jeff Taylor of Johnson's Seeds. The subject was 'Golf Course Grasses and Wild Flowers'. This proved a most interesting topic to the members present.

Our thanks to Johnsons who also provided the refreshments for the evening - these were laid-on by Jim Fulton our local representative.

Membership of the section has now risen to 52. As our area is very spread-out we would appreciate venues for meetings in the south of our area.

Our section chairman Graeme Patrick and myself, accompanied by our wives attended the international education conference at Egham.

The lectures were varied, interesting and very well delivered making the three days fly by.

Our wives were given a very well planned tour of Windsor and London keeping them very content (house points scored). Many thanks to BIGGA from the wives.

COLIN SWINGLER

Cont. on Page 24

THE SS100 . . . FIRST ON THE GREEN



IT GRADES...IT SHREDS...IT BLENDS...

Now, from GRADEALL comes a new concept in greenkeeping. A unique combination of blending, shredding and grading in a single unit that gives you:

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The SS100 performs aggressively on even the poorest quality damp soil with stones, shrubs and sods producing high quality loose and manageable soil. In fact, the SS100 turns tough, lumpy organic humus into pure, workable compost.

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AROUND THE GREEN

Cont. from Page 23

SOUTH COAST SECTION

DETAILS of the Section's summer tournament are as follows: Venue - Highcliffe Castle Golf Club; date - Tuesday, 31st July; time - Teeing off from 1 p.m.; fee - £10 per person; closing date - 21st July.

The competition, consisting of a member and partner from their club, will be the usual format of an 18 hole four ball better ball.

Written entries giving name and address, name of partner and current handicaps, together with the current fee, should be sent to: Mr Joe Burdett, 948 Castle Lane East, Bournemouth BH7 6SP. Tel. 0202 483017.

Section members were deeply shocked to hear of the death of our President's son in a car accident. Our deepest sympathy goes to Jim Fry and his wife at this terrible time.

BOB DENNIS

NORTH-WEST SECTION

GOLF tournament venues have now been completed for 1990 and these are as follows: Reg Vickers Memorial - Dunscar G.C., Wednesday June 13; Roses Match - Bury G.C. Thursday August 23; Stewards Match - Turton G.C. Monday September 10; Autumn tournament - Birchwood G.C., Tuesday October 2.

For the Roses Match, and the Stewards Match, volunteers are required to make up a team of 16 on each occasion. If you fancy a good day out let me have your name in time to play.

On April 10 the North-West members in North-Wales had a meeting at The Welsh College of Horticulture, Northop, with Neil Thomas and David Golding to discuss the possibility of a North Wales Section being formed. I believe a final decision will possibly be made next September when a further meeting will take place.

BERT CROSS

NORTHERN SECTION

THE spring tournament took place in glorious sunshine at Selby Golf Club.

Thirty nine members played twenty seven holes of golf and twelve of them qualified for the regional final of the Iseki tournament, later in the year.

The twelve who qualified were: First Division - A. Leech, E. Walsh, G. Wilson, M. Han-

nan. Second Division - M. Lealman, D. Roberts, R. Johnson, C. Martin. Third Division - G. Oxley, P. Palmer, C. Garnett, K. Townend.

These people will be notified by the regional administrator of the date and venue of the regional final. Many thanks to everybody at Selby Golf Club, the caterers who gave up their day off, head greenkeeper Steve Capel and his staff for their hard work, and finally the club committee for allowing us the courtesy of their course on the day. Thank you.

I hear of more staff changes in the section the latest being Steve Heaton's move from Skipton to Otley G.C. and committee man Brian Carr moving from South Leeds to Filey Golf Club as course manager.

After the golf the next event on the social calendar was the annual dinner dance. Ticket

We thank Coventry Golf Club for making us so welcome and allowing us the use of their course and Clubhouse facilities. We also thank the steward and his wife for the excellent meal provided in the evening.

The tournament was won by J. Hooper and the scratch prize was won by N. Woolfrey - well done both players. Many thanks to trade and trade members who donated both time and prizes which go towards running a successful tournament. John Hammond and Jim Guest did a very slick job in getting people started on time both morning and afternoon.

Finally, I must thank Mike Hughes and Steve Wood, who organised and ran the tournament so efficiently.

It was mentioned that we might arrange to run a coach

certainly seem to be shaping up well down there and I am sure that he will find the travelling a lot more to his liking, as you can see his house from the course, some 10 minutes away, rather than his former hour or so trip to Canterbury (road works permitting).

I understand that we are soon to be joined by another Scotsman who will be taking over at Tenterden. Perhaps we will soon be able to play England v Scotland matches in the section on our golf days.

Of course I am only joking - we would probably have trouble scraping together a team, especially in view of the very poor attendance at the last Spring Lecture by Inter Seeds at West Malling last month, the support for which certainly calls into question whether we will be organising any educational lectures for next year.

Paul Copsey has returned to Barnehurst Golf Club as Head Greenkeeper, with more than one or two problems to sort out, certainly no question of place of origin here as he was born in a maternity home overlooking the 2nd green 26 years ago.

On the subject of information I seem to be in competition with Andy Johnson at Sene Valley as to who is the last in the county to receive his magazine, if one arrives at all, that is.

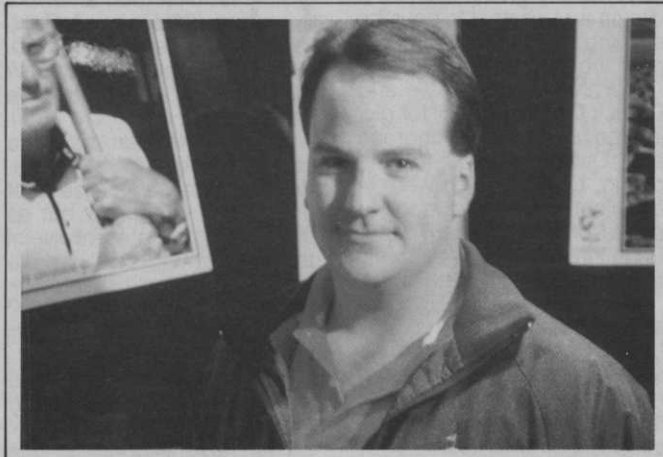
Fortunately I have been able to borrow a copy to read for the past couple of months, although I would like my own copy of the Ransomes Group Advert, or do I mean Greenkeeping Management, at some point in the future.

P. COPSEY

● *Editor's note . . . Point taken Paul about the distribution problem. I have spoken to the appropriate sources to rectify the problem - let me know if my actions are ineffective. As for the Ransomes quip . . . ouch! Below the belt. But seriously greenkeeping management is climbing aboard the low wage bandwagon in a big way. Watch this space in the months to come, as they say.*

In the meantime if you feel the magazine's balance is unfair pick up the phone and say so. Better still why not throw a few stories my way I'd love to hear from you, and, in fact all the members.

Section secretaries please note . . . the Around the Green section is for YOU. Don't forget to put pen to paper and let me, and everyone else know what's going on in your neck of the woods.



Soaking up the Florida sun - and learning a lot about greenkeeping in the United States - was Chris Rother, pictured, of Loch Lomond Golf Club, who attended the American greenkeepers convention in Orlando recently.

sales were brisk and almost 90 people attended, many of our younger greenkeepers were among them. A good night was had by all. Many thanks to all at Baildon Golf Club for their help and hospitality.

Some late news from across the Pennines - the annual Battle of the Roses golf match will take place on Thursday, August 23 at Bury Golf Club. Places are still available for the Autumn Tournament at Malton and Norton Golf Club on Wednesday, October 10 - £5 deposit please.

BOB LUPTON

MIDLANDS SECTION

ON May 2 we held our spring tournament (Ransomes Cup) at Coventry Golf Club, Finham Park. The weather was superb which was equally matched by the course, for which we thank John Bayliss and his staff.

to Llanymonch, the venue for the autumn meeting. Would people interested please let me know at our summer tournament.

Date to remember - July 11 summer tournament to be held at Broadway Golf Club. Please remember to get your entry forms in on time.

May I wish you all a pleasant and rewarding summer.

DEAN CLEAVER

KENT SECTION

WE seem to be entering that time again when staff are on the move, which seems to come about every couple of years as members seek pastures new.

The most notable move is that of John Millen from Canterbury to the new development at the Weald of Kent Golf Club near Headcorn. Under John's guidance things

Are you ALTERING, EXTENDING, or CONSTRUCTING a new course? BE ECONOMICAL and RENT PLANT FROM US

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The Watton Turf Combine

There are now 60 satisfied customers working the Watton Turf Combine. This machine has been very well received in the trade with machines sold in England and The Continent to both leading turf companies and individual customers.



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- ★ 50 yards of turf cut in 2½ minutes
- ★ Little maintenance required



Delivered to Mr. Fryer at Warrington

- ★ Fitted with the most efficient turf rolling tray, recognised on any turf machine.
- ★ Perfected over 8 years with components altered to increase life of parts.

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PRODUCT FOCUS

JACOBSEN TURFCAT NOW OFFERS FOUR-WHEEL DRIVE TRACTION

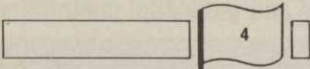
JACOBSEN'S versatile Turfcats T422D now features the hill climbing traction of on-demand four-wheel drive. A differential lock gives the T422D even greater traction to tackle slopes too steep for two-wheel drive mowers.



The Jacobsen Turfcats T422D with four-wheel drive.

The Turfcats T422D has a low maintenance liquid-cooled diesel engine for years of trouble-free service. A high efficiency hydraulic implement drive provides smooth, quiet power to attachments.

The T422D can be equipped with front-mounted 60 and 72-inch rotary mowing decks, or Jacobsen's unique 60-inch fine-cut flail. In addition, a snow thrower, straight blade blower or rotary brush can be connected to the four-wheel drive T422D for all-season maintenance work.



The Stihl FR 106 Backpack Brushcutter in action.

BACK PACK BRUSHCUTTER FROM STIHL

STIHL, the West German Power Tool company have introduced a new concept to their already extensive range of brushcutters and clearing saws.

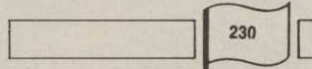
The Stihl FR 106 Backpack Brushcutter sets new standards of construction and ergonomic styling.

It is specially designed for use comfort and manoeuvrability and is primarily intended for professional applications in difficult terrain.

The power unit is in a

backpack form, and only the shaft has to be held and guided by the operator, making the FR 106 convenient and safe to handle for operations including pruning, cutting hedges and fruit trees as well as work in trenches, ditches or embankments.

The FR 106 power unit houses a compact 10.8 KG engine capable of generating 1.36 bhp, with a fuel capacity of 0.8 litres. The 35cc two-stroke engine which peaks at 11,000 rpm will run on leaded or unleaded fuel.



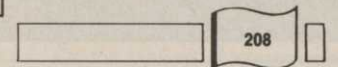
The Bourgein Sportsfield Trencher in action.

7.0% INCREASE IN GRASS COVER WITH AGRICROP

TRIALS carried out by the Sports Turf Research Institute, Bingley, during 1988/89 show that Agricrop - a blend of fermented seaweed and farmyard manure with nitrogen added - achieved a significant improvement in grass cover, an increase of 7.0% over the control. This was primarily attributable to an enhancement of festuca content on turf maintained at 13mm cutting height.

Small but consistent improvements in grass colour were also recorded with the higher agricrop treatments at the medium and high fertilizer rates. Dr Paul Wilson, Agriland's trials officer, told Greenkeeping Management that Agricrop with added iron (not used in the trial) could be expected to give a more significant "Green-up" effect. He added: "The important thing is that the STRI report confirms our own field trials, which have consistently shown improvements in grass coverage."

Agriland's amenity range includes a wetting agent (used in the STRI trial).



BOURGEIN EXPORT 700 SPORTSFIELD TRENCHER

L.D. Bourgein Oxford Ltd have delivered a Bourgeins 700 Sportsfield Trencher to Dublin-based Sportsground and Field Services Ltd.

The Bourgein 700 is a brand new trencher based upon the Davis 700 - first produced in 1965. With components shipped in from Case in the United States Bourgeins have developed an all round workhorse that can lay drains and then go sand-slitting.

The chassis has been strengthened and up-graded and the engine horse-power has been increased to 50hp. The 700 is fast enough to be competitive and is the only sportsfield trencher on the market that can trench 100mm, 150mm and 200mm width down to a metre deep.

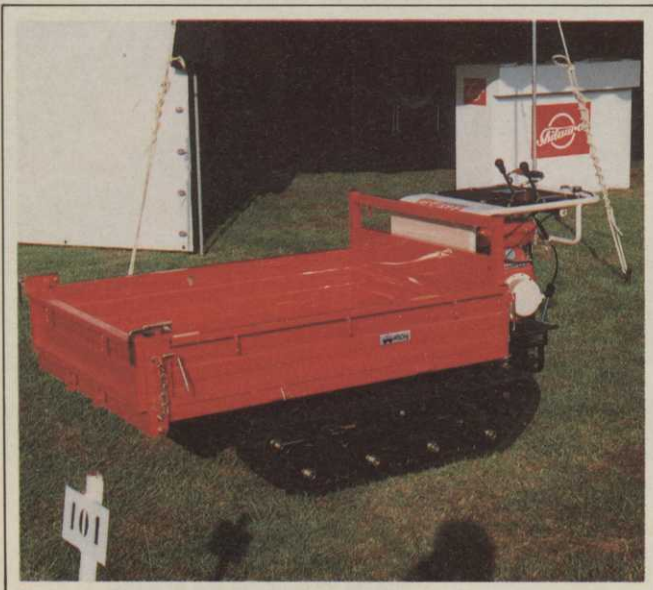
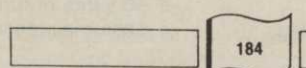
Bourgeins have tailored the machine to the British leisure industry and European sportsfield market with their own attachments - the NariDrainer and the Oxford Wheel.

SHIBAURA TRACKED TRANSPORTER

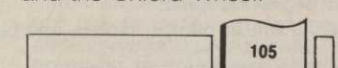
THE Shibaura tracked transporter is the go anywhere tool for moving loads up to 450kg. Two models of the very robust and very manoeuvrable transporters are available with very low ground pressure.

Both models mounted on rubber tracks are powered by a Shibaura 4-stroke petrol engine with two forward and one reverse gear.

Steering is by breaking one track or the other and it is possible to turn on the spot. Both models have tipping bodies and are extremely useful for work in confined spaces.



The Shibaura go anywhere tracked transporter.



Peterborough 1990. The I.O.G. Sports and Leisure World Trade Exhibition.

September 4th-6th 1990

1990 and the "Greatest Show on Turf" moves to its new location at the East of England Showground, Peterborough. For everyone involved in the landscaping, management and maintenance of sportsgrounds and leisure facilities it's an event not to be missed.

With more on view than ever before, it's bound to be a year to remember and an exhibition never to forget.

The largest exhibition of its kind in the world.

The I.O.G. World Trade Exhibition has gone from strength to strength, from success to success and Peterborough will be yet another milestone in what's become the greatest exhibition of its kind, anywhere in the world.

A truly international event.

More than 24 countries will be represented and overseas trade visitors will be expected to exceed the 1500 mark. No other similar exhibition can be matched for the quality and variety of its visiting public.

A new and exciting venue.

The East of England Showground boasts the finest facilities available for this type of event, for instance there will be 20,000 square metres of working demonstrations on show.

Peterborough's centralized location is ideal for road, rail and air links, and the Showground itself boasts ample car parking spaces and easy access for everyone involved.

Many exhibits on display.

Everything that is needed for the care of sports grounds, playing fields, leisure and other amenity areas will be on show.

These include: Advisory Services, Arboriculture, Agrochemicals, Buildings, Engines and Motors, Irrigation, Outdoor Furniture, Plant and Machinery, Play equipment, Protective clothing, Safety and Security, Seeds, Turf, Plants, Technical Books and Journals, Sports Goods, Waste Disposal and many more.

The Exhibition Organiser,

The Institute of Groundsmanship, 19-23 Church Street,
The Agora, Wolverton, Milton Keynes,
Buckinghamshire MK12 5LG
Telephone: Milton Keynes (0908) 311856
Fax. No. (0908) 311140.
(Office hours: 9.30am-4.30p.m. Monday to Friday).



THE INSTITUTE OF GROUNDSMANSHIP

GREENKEEPING MANAGEMENT 27

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The Ransomes GT now with new

The new Ransomes GT with Verti-Groom is, quite simply, the most precise greens triple ever.

Now in just one operation you can groom greens and precision mow. The new greens unit with Verti-Groom attachment will reduce the build-up of thatch and give you a

smoother, faster putting surface and a more consistent finish across each and every green.

Here are just some of the unique new advantages of the Ransomes GT.

With the Verti-Groom mounted ahead of the front roller, the greens unit roller base is around 20% shorter

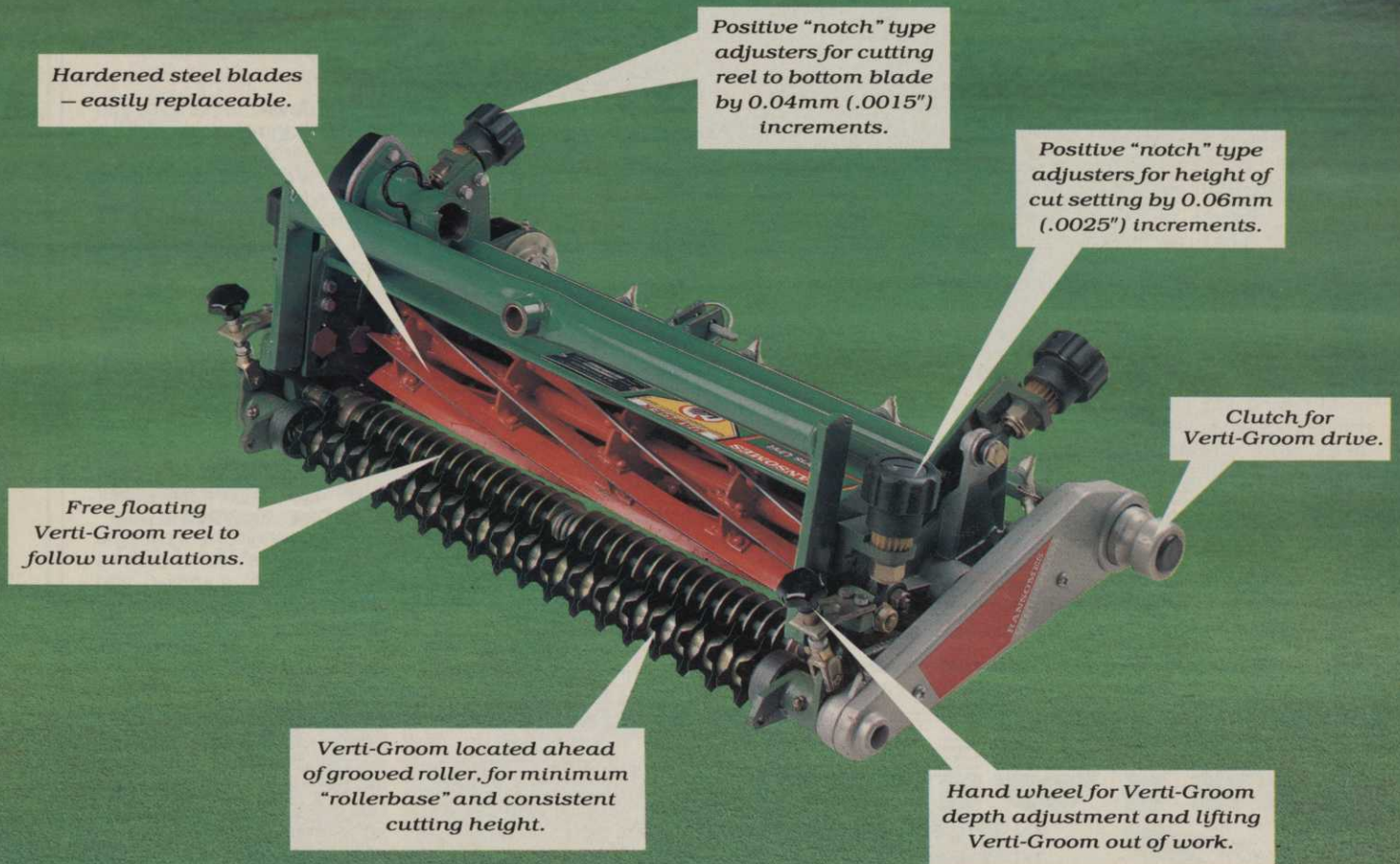
than any comparable machine.

So, it gives a more consistent height of cut over undulating areas while dramatically reducing the risk of scalping. It's fully floating too so there's no risk of digging in.

You can engage or disengage the Verti-Groom attachment with a



...you need the finest mowing precision.



Greens Unit and Verti-Groom.

RANSOMES

simple hand-operated clutch and for standard greens mowing, lift it well out of work.

The greens unit itself is entirely new too, making it more precise than ever before.

Now you can adjust the height of cut by increments as fine as .0025"

and adjust the reel to the bottom blade by .0015" at a time. Solidly engineered, notched micro adjustments mean no tools are required.

These are just a few of the many features that make Ransomes GT with Verti-Groom the most precise greens mower money can buy.

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World leaders in turf maintenance machinery.

EARTHWORMS



Weed and worms in an alkaline plot.

EARTHWORMS:
Beneficials or pests?
Part one of a report by
Karen Delahaut and C.F.
Koval
Department of Entomology
University of Wisconsin-
Madison

EARTHWORMS are found in a wide range of habitats throughout the world, having adapted to many different soil types as well as to lakes and streams. Earthworms - often called nightcrawlers, garden worms, red worms or, simply, worms - are a valuable resource to many people.

They provide bait for fishing, a source of protein for food, and most importantly, they

play a unique and important role in conditioning the soil.

With the advent of chemical pest control, however, earthworms have become non-target recipients of many pesticides.

Some of the most effective pesticides are broad spectrum

in action, and they may inadvertently harm earthworms and other beneficial soil organisms.

Earthworms belong to the phylum Annelida and the class Oligochaeta, which consists of over 7,000 species. Their bodies are long and tube-like, tapering at both ends and ranging in length from one to six inches.

Another characteristic of the phylum Annelida is a segmented body, including an enlargement of several segments to produce the clitellum, a glandular organ used for reproduction.

Earthworms are hermaphroditic and homosexual, and thus they may function as either a male or a female during reproduction. Self-fertilization does not occur.

Although one acre of soil may hold up to eight million earthworms, most people pay little attention to these productive and beneficial animals.

They mostly go unnoticed from day to day, unless a heavy rain forces them to the surface of the soil, an angler needs some bait, or their casts disrupt a game of golf.

Builders of Soil

Earthworms benefit the soil in many ways primarily due to the physical and chemical effects of their casts and burrows. Earthworm casts, consisting of waste excreted after feeding, are composed mostly of soil mixed with digested plant residues.

Casts modify soil structure by breaking larger soil particles into finer granules. As plant materials and soil passes through an earthworm's digestive system, its gizzard

breaks down the particles into smaller fragments.

These fragments, once excreted, are further decomposed by other worms and microorganisms. Earthworm casts can contribute up to 50 per cent of the soil aggregates in some soils.

Cast production is most abundant in spring and autumn when earthworms inhabit surface layers of the soil. During this time, 20 casts per square foot of soil surface are not uncommon, and as much as 40 pounds of casts per 1000 square feet per year have been recorded.

Under conditions of extreme temperatures or moisture stress during summer and winter, earthworms migrate downward into subsoil horizons.

Soil Fertility Enhanced

Earthworms are also important to the nutrient availability of the soil. As they feed, they deposit digested organic matter and minerals along their burrows in the form of casts, a rich source of nutrients placed in close proximity to the plant's roots growing through the burrows.

Comparative analyses of casts and surrounding soil have shown that casts contain five times more nitrogen, seven times more phosphorus, 11 times more potassium, three times more exchangeable magnesium, and one-and-one-half times more calcium.

In soils populated by earthworms, accelerated decomposition of organic matter and an increase in available nitrogen results in greater numbers of nitrogen-fixing bacteria.

Phosphorus availability also increase, due to earthworms' ingestion of phosphate rock particles and the consequent movement down burrows of phosphorus-containing casts.

Furthermore, an abundance of earthworms means an abundance of decomposed organic matter — decomposition is limited only by the amount of material available, not by earthworms' capacity to ingest plant material.

Read July's issue for Part 2.

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Powered by a 3 cylinder diesel engine or an 18hp petrol engine provides complete hydraulic operation, including power steering and hydraulic drive to the cutting cylinders.

Optional extras include turf groomers, verti-cut units and tees units.

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GREENKEEPERS

TRAINING COMMITTEE

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Surely the best way to invest in the future is to invest in people. Training and education are the greatest motivating factors. A more articulate and educated workforce will inevitably lead to greater rewards and an awareness and recognition of the greenkeepers profession.

The Greenkeepers Training Scheme has appointed eleven colleges in Britain and Ireland as Centres of Excellence for Golf Greenkeeper Training.

Langside College
Buchanan Drive,
Rutherglen, Glasgow,
Scotland.
(041) 647 6300.
Contact
Archie Morrison

Lancashire College
Myerscough Hall
Bilsborrow
Preston
Lancs
(0995) 40611
Contact
John Hacker

Teagasc National
Botanic Gardens
Glasnevin, Dublin 9,
Ireland.
(00) 01 371 636
Contact Pat Suttle

Welsh College
Northop
Mold
Clwyd
Wales
(035286) 861
Contact
Graham Wright

Oaklands College
St. Albans,
Herts.
(0727) 50651
Contact Ian Merrick

Cannington College
Cannington, Bridgewater,
Somerset.
(0278) 652226
Contact Nick Rigden

Elmwood College
Cupar, Fife, Scotland.
(0334) 52781
Contact Mike Taylor

Oatridge Agricultural College
Ecclesmachan, Broxburn,
Scotland.
(0506) 854387
Contact Quentin Allardice

Cheshire College of Agriculture
and Horticulture
Reaseheath, Nantwich, Cheshire.
(0270) 625131
Contact Dennis Mortram

Askham Bryan College
Askham Bryan, York.
(0904) 702121
Contact Nick Bisset

Warwickshire College
Moreton Morrell,
Warwick.
(0926) 651367
Contacts Hugh Nunn
and Roy Nelson

Sparsholt
College
Sparsholt,
Hants.
096 272 441
Contact
Bob Young

Plumpton College
Plumpton, Lewes.
(0273) 890454
Contact
David Blackmur

Continued from Page 7.

course and communications.

Week 4 commencing Monday 12 November (1989 delegates will have the first option). Course content includes: Personal awareness, report writing, public speaking, team building, stress, committee presentation and customer care.

The cost of weeks 1, 2, 3 or 4 will be £173.75 plus VAT. Total £200.00. Accommodation, four nights, all meals etc will be on a twin-bedded basis within the Aldwark Manor Hotel, York. Please make all cheques payable to BIGGA.

MASTER GREENKEEPER CERTIFICATE UPDATE

SEVERAL members are fast approaching the magical 200 credits which will then allow them onto Stages 2 and 3 of the Certificate.

The MGC Working Party have taken into consideration all the constructive comments from members since the introduction of the Scheme and more and more members are now joining.

Golf Clubs are registering the full Greenkeeping Staff onto the Scheme and at the same time requesting directions for the staff's education. Are you registered yet?

Several of the Greenkeepers Training Committee Colleges are looking at Schemes for accrediting Greenkeepers for their previous learning. This will be a major breakthrough for all greenkeepers who have not received certificates for all their experience and knowledge attained over the years. Credits will also be issued for Section, Regional and National Seminars.

The College Courses all carry high credits for their City and Guilds and Scotvec courses. NB Extra Credits are given for attending courses at GTC Approved Colleges. Stages 2 and 3 are here in detail and also a Credits Report example on the many ways of achieving Stage 1. If anyone has any questions about the MGC please ring me at Headquarters. Remember the Master Greenkeeper Certificate is the most prestigious award in our profession based on both experience and education.

DAVID GOLDING
Education Officer

MASTER GREENKEEPER CERTIFICATE

Details of Stage Two

THERE are nine sub-sections, all of which must be passed. Sections will be marked from one to five and if a question is marked less than three, questions will be asked. If a satisfactory answer is given, then a further one or two marks may be awarded.

Section 1. Presentation of the Course.

Areas of assessment: i. greens, ii. tees, iii. fairways, iv semi-rough, v. rough, vi. bunkers, vii. surrounds, viii. pathways, ix. furniture, x. hazards, xi. clubhouse area, xii drainage, xiii. trees and xiv. boundary fences, hedges etc. Presentation involves accuracy and tidiness of maintenance, siting, condition and playability of area.

Section 2. Staff Organisation.

In staff organisation, the assessors will be looking for general attitude to work from the point of view of the golfer, dress, welfare, accommodation and training programmes on and off site. This will require questions in the following areas: i. welfare, ii. training – on site, iii. training – off site, iv. attitude and v. safety.

Section 3. Organisation of Sheds.

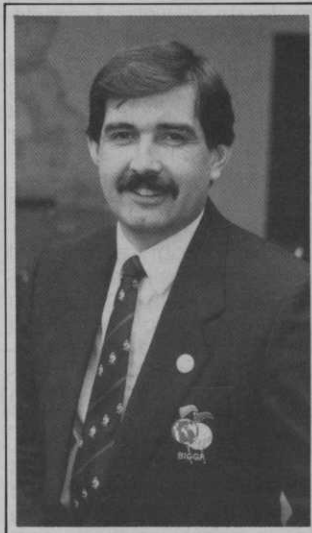
Assessors will be looking for general tidiness (not daily dirt), compliance with appropriate safety regulations regarding storage of tools and equipment, also the current state of repairs of buildings. Questions will be asked in the following areas: i. tidiness, ii. legislation and iii. shed condition.

Section 4. Budget Management.

The wide range of variation and responsibility should be recognised in this section but the least expected should be that the budget prepared by the Greenkeeper should be the basis for management discussion. The important elements are therefore responsibility for the budget within members (Committee) limits. NB Lack of direct involvement with setting or servicing a budget by whatever means will be regarded as a disqualification. Questions will be asked on the following: i. Preparation of a budget, ii. Control of a budget and iii. Purchasing procedures.

Section 5. Record and Stock Control.

Assessors will expect to find that all records required as a result of legislation are completed to their satisfaction. Also other records are necessary to achieve an adequate level of



BIGGA Education Officer David Golding.

management. Accessibility of records to other staff will be taken into account where appropriate and therefore questions will be asked on the following: i. Diary, ii. Machine Maintenance, iii. Stock Inventory and iv. Chemical Log.

Section 6. Management Participation.

In this area a Master Greenkeeper should play a major role in the decision making process of the club with regards to the golf course. It is essential that the relationship to the management, the role within the Committee and the ability/opportunity to submit reports and support them will be considered. Questions regarding the exact areas will be asked: i. Attendance at management meetings, ii. Role at management meetings, iii. Report submission, iv. Relationship with management.

Section 7. Course Development Programme.

Assessors will be looking for the candidate to recognise potential problems and have drawn up a programme to correct or rectify specific problems. This may involve a long term maintenance or construction programme. Assessors will be looking for the relationship between the greenkeeper and the club in the methods used in drawing up the programme.

NB. It will be assumed that bodies providing relevant assistance would be brought in as required. Questions will be asked on the following: i. Construction programme implemented, ii. Development programme in situ, iii. Sources used for development and iv. Conservation.

Section 8. Machine and Irrigation.

Assessors will be looking for a planned replacement and maintenance programme. The

greenkeeper's influence, also at the operative condition of equipment, which will also be coupled with questions directed to what the assessors find: i. Programme, ii. Condition, iii. Irrigation operative and iv. Irrigation Maintenance.

Section 9. Golf.

An ability to play golf or at least a detailed knowledge of the requirements of a golfer of varying standards. i. Golfing knowledge. All sections must be passed to complete Stage 2. The applicant will be notified of the result within two months and if unsuccessful can appeal to the BIGGA Education Sub-Committee within one month.

MASTER GREENKEEPER – STAGE 3 MODULE EXAMINATION SYLLABUS

All syllabus items should be prefixed by the words: "The Master Greenkeeper is expected to be able to".

1 Plants and Growth, Trees and Shrubs

Grasses and Turf: 1.1 Recognise and evaluate the more common grass species. 1.2 Interpret reliable sources of technical information on species and cultivars. 1.3 Relate plant structure and the following physiological processes involved in plant growth to the turf grass management: 1. Photosynthesis; b. Respiration; c. Water uptake and transpiration and d. Nutrient uptake and distribution.

1.4 Recognise the effects of plant growth and the relationship to turf management of the following: a. Light levels; b. Day length; c. Temperature; d. Water levels; e. Maintenance operations and f. Wear.

1.5 Explain the effects of maintenance procedures, wear and tear, soil type and condition on botanical composition of turf. 1.6 Explain the methods involved in restoring and improving botanical composition of turf. 1.7 Explain the consequences of changing maintenance operations on the survival and development of grasses. 1.8 Recognise changes in general turf appearances, composition and range of plants. 1.9 Recognise environmental factors influencing range of plants found on parkland, heathland, moorland and links courses. 2.0 Explain how grasses are selected, bred and bulked up for sales by plant breeders.

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EDUCATION

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Trees and Shrubs

2.1 Evaluate the use of trees and shrubs on golf courses. 2.2 Explain that selected trees and shrubs must be suitable for the purpose, soil type and environment. 2.3 Explain the importance of good positioning, planting and maintenance on trees, shrubs and hedges. 2.4 Recognise problems and maintenance of mature trees. 2.5 Ornamental Plants: i. Evaluate the uses of ornamental plants for – a. Clubhouse surrounds; ii. Explain the establishment and maintenance of – a. Seasonal bedding; b. Herbaceous borders; c. Outdoor pot planters and troughs.

2. Soils and Water, Fertilizers, Pest, Disease and Weed Control

Soils and Water

1.1 Appreciate how soils are formed by weathering from parent materials. 1.2 Interpret and use the information contained in a soil map. 1.3 Appreciate the effect on surface vegetation, drainage capacity and plant growth of various types of soil profile. 1.4 Recognise the meaning of 'soil structure' and 'soil texture' and explain their effects on fertility, drainage and nutrient retention. 1.5 Describe the effects of cultivation on structure. 1.6 Predict whether soils are subject to puddling, poaching, capping or erosion. 1.7 Explain the importance of soil air with regard to bulk density, pore space and compaction. 1.8 Explain humification. 1.9 Define 'soil organic matter' and explain the role it plays in nutrient status, pH, water retention, cation exchange capacity and thatching. 1.10 Recognise the principles of land drainage and modern drainage methods. 1.11 Explain the common terms

relating to soil water: 1. gravitational water; b. capillary water; c. hygroscopic water; d. field capacity; e. Permanent wilting point; f. soil moisture deficit and its calculation; g. High water table; h. Perched water table; i. impermeable subsoils; j. Available water capacity and its calculation.

1.12 Recognise physical and botanical indicators of impeded drainage. 1.13 Explain the importance of Carbon and Nitrogen cycles and their relationship to soil fertility. 1.14 Explain the effects of pH level on nutrient status and availability, grass species and plant stress. 1.15 Explain the importance of soil mechanical analysis and chemical analysis with regard to construction and maintenance procedures. 1.16 Explain cation exchange and buffering capacity.

Fertilisers

2.1 Understand the need for turf nutrition and prepare a balanced programme to satisfy the need. 2.2 Demonstrate ability to compare different fertilisers and appreciate short and long term affects of regular use of different types. i. Explain what is meant by terms 'Major element' and 'Minor of Micro elements'. ii. Explain the effects of deficiencies and excesses of fertiliser usage. iii. Explain the terms related to everyday fertiliser use: a. inorganic; b. organic; c. compounds and straights; d. slow release; e. liquid applications; f. prilled; g. base dressing; h. top dressing. 2.3 Describe various methods and rates of fertiliser application. 2.4 Relate the effect of fertilisers on soil pH. 2.5 Describe the fertiliser requirements for specific swards in different situations (sand, USGA, links, heath, parkland). 2.6 Utilise a sound understanding of fertilisers to produce a balanced programme for fine turf. 2.7 Explain how plant food ratios are an important part of any fer-

tiliser programme.

Pest, Disease and Weed Control

3.1 Recognise the symptoms of the more common diseases of turf. Recognise the environmental factors which lead to development of turf diseases and explain the cultural control methods. 3.2 Appreciate chemical methods of controlling turf diseases and the consequences of using the chemicals on the turf grass environment. 3.4 Recognise a wide range of weeds in turf. 3.5 Recognise indicator weeds for soil type, pH level, wear level and poor drainage. 3.6 Explain the cultural, chemical and biological controls used on weeds. 3.7 Explain the relationship between poor maintenance, heavy wear and weed infestation. 3.8 Identify the pests commonly found in new and/or established turf and the damage caused. 3.9 Explain the cultural, chemical and biological controls used on pests of turf. 3.10 Explain the term 'Chemical Formulations' and mode of action using examples. Recognise the importance of formulation and the mode of action of pesticides. 3.11 Recognise the role for wetting agents and growth regulations.

3 – Machinery; Health, Safety and Welfare

1.1 Evaluate machinery for golf course: i. Evaluate powered and trailed golf course equipment with regard to: a. Engine type and size; b. Fuel type; c. Performance; d. Servicing and maintenance. 1.2 Describe the requirements for safe, suitable storage of: a. Tools. b. Machines. c. Spares.

Health, Safety and Welfare

2.1 Explain the various requirements of: a. Health and Safety at Work Act; b. Food and Environment Protection Act (FEPA); c. Control of Substances Hazardous to Health (COSHH); d. Storage of

Fuel etc; e. Use of vehicles on Highways; relative to golf course management.

4 – Construction

1.1 Appreciate golf course design relating to positioning, shape and size of greens, tees, bunkers, fairways and water with regard to: a. Requirement of the game; b. Existing landscape; c. Future maintenance. 1.2 Appreciate up to date methods of constructing greens, tees, fairways and bunkers. 1.3 Appreciate the advantages and limitations of different techniques of construction with regard to future maintenance and existing features. 1.4 Prepare specifications and Bills of Quantities for constructing features. 1.5 Understand the method of ascertaining suitability of materials used in construction. 1.6 Understand the principles of basic surveying. 1.7 Appreciate the additional work involved in the preparation before and restoration after a major golf tournament.

5 – Management The Golf Industry

1.1 Understand the structure of the golf industry including: a. History of game; b. Number of golf courses in the UK; c. The distribution of these golf courses; d. The number of players; e. Employment numbers; f. Present trends eg Set-aside scheme.

Finance

2.1 a. List the sources of funds available for the development of golfing facilities and describe the advantages and disadvantages of each. b. Prepare budgets for construction and maintenance work. c. Describe how to present such budgets to committee. d. Explain how to monitor/control a budget once monies have been allocated by committee. e. Explain the terms used when budgeting for replacement

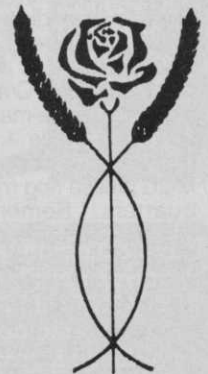
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EDUCATION

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machinery eg. Leasing, hire purchase, depreciation systems. f. Describe how to complete on analytical cash book and deal with petty cash. g. Explain stock control of materials and equipment.

Interpret Research Data.

3.1 Explain the benefits of golf courses to the localities in

which they are situated: i. Acting as reserves for wildlife and plants. ii. Improving the attractiveness of an area to developers and industrialists who are relocating. 3.2 Explain the role of golf course staff in relation to the "corporate image" of the golf club from above. 3.3 Explain the roles of the main national bodies in relation to golf courses, including the R & A, PGA, Golf

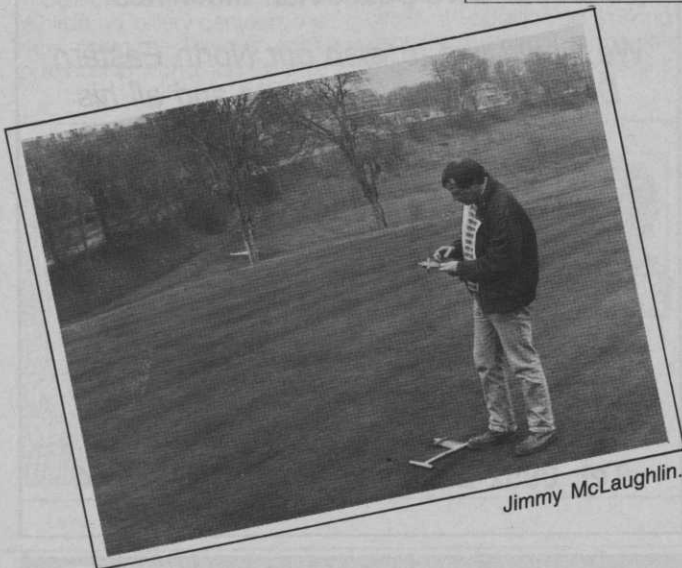
Unions and Golf Development Council, STRI, BIGGA, Sports Council, NCC.

Organisation, Management and Supervision

4.1 a. Understand the management structures of private and municipal golf clubs. b. Explain the importance of the relationships between a club's staff and its various management committees. c. Explain the role of a

Manager. d. Explain the main points of Employment Law as they affect a Manager/Supervisor: e.g. i. Health and Safety at Work including the FEPA and COSHH regulations. ii. Employees' rights including time off work, written statement of particulars of employment, minimum standards of working conditions, itemised pay statements, disciplinary and grievance procedures.

ON THE COURSE



Jimmy McLaughlin.



Jimmy McLaughlin and the clubhouse at "The Merchants".

JIMMY McLAUGHLIN — MERCHANTS OF EDINBURGH GOLF CLUB

● Jimmy McLaughlin began his greenkeeping career in 1969 as a 15-year-old apprentice at Kingsknowe G.C. in Edinburgh. Once qualified he moved to Dalmahoy Golf and Country Club on the edge of the city. After five years at Dalmahoy, he became head greenkeeper at "The Merchants", an 18-hole course set in the heart of one of Edinburgh's most popular residential areas.

The course measures 4889 yards and has a membership list of 700. Jimmy's greenkeeping staff consists of a first assistant, a tractor driver and a trainee.

"THERE are times during the winter when I feel more like the course manager for Ski Sunday than head greenkeeper of the Merchants," says Jimmy.

The comment, made in good humour, reflected one of the demands attached to maintaining a city golf course which threads its way around Craiglockhart Hill and has a pleasing combination of hills and valleys.

When the snow begins to fall in Edinburgh, for example, many small boys in the Craiglockhart area grab their sledges and head for the Merchants' inviting slopes.

"Sledging on the course during heavy snow is such a long-held tradition that there is nothing we can do to stop it," said

Jimmy. "We have on occasions cleared children away from the course but all you get is a completely different set of sledgers arriving a few minutes later.

"We actually don't mind too much when the course is heavily frozen but the sledges can cause some damage when the snow and ice begins to melt."

Particularly galling for Jimmy and his team is the fact that some of the most popular sledge runs plot a path across the first and ninth fairways, straight over the eighth green, through a gap in the wall and across the 18th fairway.

"Once the snow clears we simply have to go out and tread down any ruts which have been left," he said. "It's a fact of life for this course and most of the time the damage isn't too bad."

Being set in a residential area with a major road running through the course, the Merchants is seen by many local residents as a valuable part of the landscape. Jimmy also views the course as an attractive area of land in addition to its more obvious sporting role.

"When we reach Friday each week I like to look back at the course and see that we've put it into top class condition for the members," he said. "Equally, it is satisfying to see that the course adds to the local environment."

The Merchants is a beautifully wooded course, an attribute which has been maintained despite the all too common impact of Dutch Elm Disease during the past few years.

"We lost quite a lot of trees to the

disease and had to embark on a replanting programme five years ago," said Jimmy. "We're currently putting in oak, ash and birch and are making good progress."

The conservationist theme has been added to in recent years with the designation of one part of the course as a Site of Special Scientific Interest (SSSI), a development which Jimmy welcomes.

"The SSSI applies to a craggy part of the course which could never be played over and which is therefore left well alone," he said. "It was found, however, that because the area hadn't been touched by either ploughs or herbicides it contained a number of flower and fauna species which weren't present anywhere else in the whole of Edinburgh."

Jimmy's obvious enjoyment of his job and his "workplace" is perhaps explained by an experience which laid him low for the best part of nine months, some eight years ago.

"It was found that I had a cancer, thankfully one of the more treatable varieties," he said. "Because of the lengthy period of therapy involved, I lost nine months of my life to the disease although in return I think I gained a greater appreciation of plant and wildlife."

"There's nothing better than to be at the Merchants early on a spring morning to enjoy the full beauty of the course and its surroundings."

● This feature is produced by Colin Ley on behalf of the INTURF Group of Companies.

LETTERS

Dear Club Secretaries,
BIGGA's membership has now topped the 4,000 mark standing at a superb 4,098.

Greenkeeping Management is circulated to all BIGGA members both at home and abroad.

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Yours sincerely
MIKE McCLENNAN
 Editor

P.S. I'm particularly interested in hearing snippets from all BIGGA readers around the country concerning news on greens staff, their problems and pluses and any new golf course developments.

Dear Sir,
 I thought you might like a copy of the following Minute which was recorded at the inaugural meeting to form Braintree Golf Club in 1891.

"At this meeting it was agreed to accept the offer of three fields: To obtain the services of *a man* to lay out the ground and to commence play, if possible, on Saturday next."

Four days to cut three fields, make nine tees and nine greens and thus lay out the course. Do you think that today's greenkeepers are a rather backward lot when they are making new courses, new greens and new tees even with modern machinery?

H.W. HARDY
 Secretary/Manager
 Braintree Golf Club

● *Editor's note . . . thanks for that amusing little insight Hilton! Well guys can anyone match that?*

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SHORTS OF WHITBURN

WHEN Mr J. Bland Short set up his blacksmith's business in Whitburn in 1797 it was in a 15th century building in East Street, with beams from the Spanish Armada.

Now, five generations of the family and an apprentice later, Shorts of Whitburn, now highly regarded sales and service specialists in grasscutting and horticultural machinery, have moved into £140,000 purpose-built premises on a sea view location in Mill Lane, opposite The Lodge public house.

Built on the site of the former Whitburn Colliery canteen, the new premises have a comprehensive workshop for pro-

fessional grasscutting machinery and another for the domestic market.

There is a spares department, reception area and showroom, and spacious office accommodation.

When there was no son to carry on the family business, Mr Tony Chambers, who started as a 15-year-old apprentice with the firm, bought it out when he was 24

And as a result of his expansion policies the firm now employs eight technicians, and caters for the grasscutting needs of 90 North-East golf clubs, in addition to looking after local authorities, cricket clubs, colliery welfare schemes

and the owners of domestic lawn mowers.

The firm are agents for Toro, the American grasscutters firm,

and the staff have been on manufacturers' courses in places including New York, Chicago and Minneapolis.

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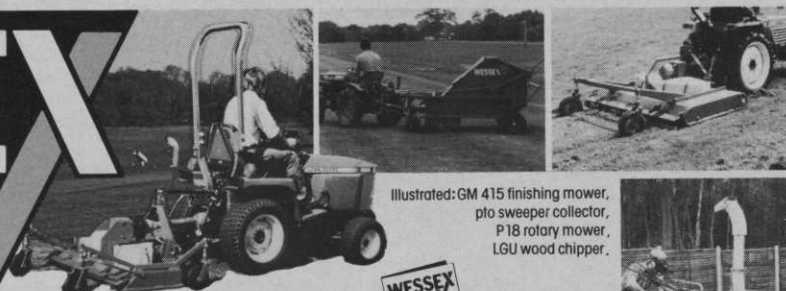
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even wider field of view at the 18x magnification or much more detail at 36x magnification.

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Both units are designed to operate without supplement lighting. However, in situations requiring additional lighting special illuminators are available.

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IN THE PICTURE

LANCASHIRE BECOMES AN APPROVED GTC COLLEGE

THE Lancashire College of Agriculture and Horticulture has now become an approved centre for Greenkeeper training. The College has, for many years, taught a wide range of Greenkeeping courses including Phase II City and Guilds, the National Certificate in Groundsmanship and Greenkeeping and the National Diploma in Turf Science and Sportsground Management.

The BTEC National Diploma was the first of its kind in the country enabling students to study full time for a management level qualification in Greenkeeping.

John Hacker, senior lecturer and course manager says: "The College is very pleased to have been given the status of an approved college by the GTC. My colleagues and I have, for many years, been trying to raise the status of the Greenkeeping profession in this country by providing management level courses such as the National Diploma".

Several final year Diploma students have just returned from their third year industrial placement on golf courses in the U.S.A. and their employer assessments show that young British Greenkeepers are in demand throughout the greenkeeping world.

IOG EXHIBITION MOVES TO PETERBOROUGH

THE Institute of Groundsmanship has chosen The East of England Showground, Peterborough as the home of its sports and leisure world trade exhibition.

Although Windsor, a past home of the IOG Exhibition, was held with affection, it was becoming increasingly difficult for both visitors and exhibitors to be accommodated.

Peterborough has been chosen because it is skirted by the A1 which runs the entire length of England and into Scotland. Linking into this are major motorways. There is an excellent rail network, and in addition, Stansted Airport, with its huge development programme well underway, is just an hour away.

There are public transport links from Heathrow and Gatwick, with the half hourly courtesy coaches being laid on by the IOG from Peterborough rail station.

Left to right: Mark Helliwell, sales executive Professional Grass Care (Midlands) Ltd; Keith Helliwell, head greenkeeper, Horncastle Golf and Country Club, Ernie Wright, club owner, and Russell Mellor, Kubota Northern Regional Manager.



LINCOLNSHIRE'S NEWEST GOLF COURSE CHOOSES KUBOTA

THE £2.5 million Horncastle Golf and Country Club complex, has chosen Kubota machinery to meet its turf-care needs.

Lincolnshire's latest golf and leisure club, situated in the heart of the Lincolnshire Wolds at Shearman's Wath, West Ashby, is owned and designed by Mr Ernie Wright.

It will accommodate up to 500 members and is scheduled for completion in July.

The complex comprises an 18 hole golf course, bar and restaurant together with a conference and function suite. The 25 bay floodlit driving range - overlooked by the VIP lounge - provides the opportunity for play at any time. For the angl-

ing enthusiast there are superb carp and tench lakes.

A golfer of 27 years' playing experience Ernie designed the golf course to shock its members.

The turf equipment purchased by the Club will play a key role in the course and Ernie Wright approached Kubota dealers Professional Grass Care (Midlands) Limited, Louth, Lincolnshire two years ago.

When it came to the final buying decision he opted for the Kubota B1750 HST, 4WD, 20 hp compact tractor. This model incorporates the unique Kubota Bi-Speed turn which allows tighter turning, without damaging the turf, and hydrostatic transmission which provides operator friendly, single pedal control of tractor speeds and direction, forwards and backwards.

METROMOWER PREFERRED TO A GOLD WATCH

WHEN it came to a "thank you" for 25 years' service to Turner International, Sales Director Graham Satchwell said that he would rather have a Turner Metromower: In terms of product loyalty that takes some beating!

Graham joined Turner in 1963 at the age of 16, a sort of combination of tea boy and apprentice engineer, he says. At that time the total staff amounted to six people and Graham learned welding and machining skills in the workshops.

After three years he was given the opportunity to provide field support in service and commissioning work and, in the early 1970's, when only in his twenties he graduated to global travel to promote Turner equipment on the world market.

At that time flail mowers were practically unheard of and he recalls the acute interest that



Graham Satchwell (left) Turner International Marketing Director, receiving a Turner Metro-Mower from John Fox to mark his 25 years with the company.

greeted his uncrating and fitting a flail cutter in some unpronounceable part of the world.

Promoted to the position of Sales Manager in the UK in 1975 Graham continued his rise through the company. He became a Director in 1978 as a prelude to his present position as Sales and Marketing Director.

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The Directors are: Gordon Jaaback, who manages the projects and is an internationally experienced turfgrass agronomist, who has for 20 years been intimately involved with golf courses and the turfgrass industry having operated his own construction company.

Frank Dale is head of Frank Dale (Agricultural Contractors) Ltd, with over 25 years of experience in undertaking earthworks for local authorities and private organisations. His experience in sportsfield development, landscaping of quarries and the construction of water features - either for storage or amenity use - is unsurpassed. With an extensive range of fully owned equipment he brings an independence to the company that is invaluable.

Geoff Turner is Chief Executive of the Coblands Group of which Coblands Landscapes Ltd has over 25 years of experience as contractors in public and commercial landscaping, construction of sports playing fields and all types of amenity planting and landscape treatments. They have won 5 BALI national landscaping awards in 10 years.

Bob Brown is Managing Director of E.H. Brown & Son Ltd, a family business established in 1947.



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*"Didin" is a trade mark of SKW Trostberg AG



South West's Gordon Child pictured beside the BIGGA stand at Westurf.



Some of the many exhibits soak up the sun at Long Ashton Golf Club.

Giant stride forward for West

Greenkeeping Management's Editor Mike McClennan recently attended the Westurf 90 Exhibition held at Long Ashton Golf Club near Bristol. These are his views of the day.

If numbers tell the tale then Westurf Exhibition 1990 was a resounding success. More than 80 trade members took advantage of glorious weather to participate in what is rapidly establishing itself as the South West region's premier exhibition. That figure represents a 40 per cent increase in trade participation since the inaugural Westurf exhibition last year. And judging from their response traders were more than enthusiastic about the whole event.

Long Ashton Golf Club, nestling in the hills surrounding picturesque Bristol was the venue and a full car park bore witness to the fact that visitors came from far and wide to attend.

Long Ashton is the home to BIGGA's current Chairman, Ivor Scoones, and Ivor was well to the fore meeting people, making them feel at home and generally seeing that the exhibition was a great success.

"It's very hard work but very enjoyable", said a red faced Ivor, sweating after his exertions under a boiling sun.

"This year has shown just what a great demand there is for such an event and the potential for expansion is there for all to see".

The Westurf exhibition was the brainchild of South West area chief, Gordon Child, who has seen the event mushroom in an incredibly short time.

Gordon sees Westurf as an ideal vehicle to promote the Association in the South West, bringing trade and members together for mutual benefit.

"This year has seen a great step forward from 1989. Then we had 60 odd stands. This year it is over 80 and some of the big boys have given us support.

"I am pleasantly surprised at the amount of support we have received and I am sure things will continue to grow in the future.

"I feel it is vital, particularly in the South West region, for people who may be spread far and wide to be brought together in an exhibition such as this.

"The good weather has obviously helped and many bookings have already been made for next year's show."

Major companies such as Iseki, Maxwell Hart, I.C.I., Huxley's and Jacobsens all turned up on the day together with a whole host of smaller, localised firms and representatives of training colleges.

BIGGA's Executive Director, Neil Thomas, was rather delighted with the exhibition's success.

"Everything seems to have gone off very well and members are pleased with the outcome. Exhibitions such as Westurf are a marvellous initiative and one I would applaud whole-heartedly."



BIGGA Executive Director Neil Thomas (second right) listens intently to the members' views.



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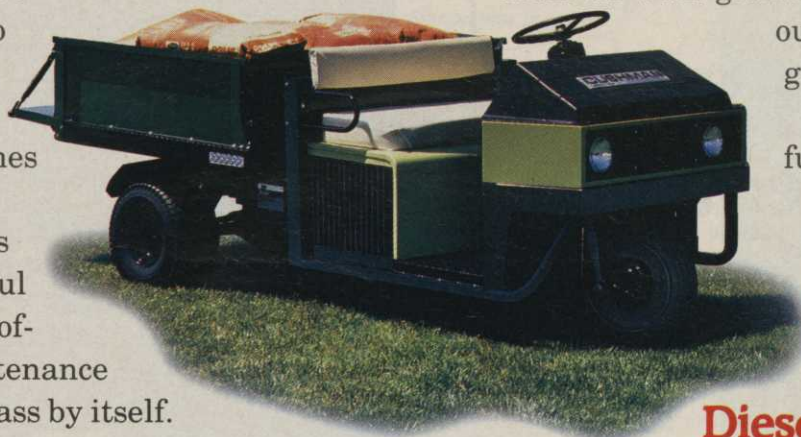
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THE PUTTING GREEN

THE PUTTING GREEN THE STIMPMETER – A USER-FRIENDLY KEY TO BETTER GREENS

Harold Swash with John Nelson

THIS is the fourth in a series of articles in which Harold Swash, Britain's Putting Doctor, engages in dialogue with members of BIGGA on "What golfers want from putting green surfaces."

The title of our previous article, "Doing the Simple Things Well – The First lesson from Augusta", was chosen deliberately to show that it is possible to learn from Augusta National, and to counter the view that all we ever here can do is sit back and admire the (unattainable) playing conditions we see there.

Of course we must be selective in what we learn and try to apply. But to argue that the so-called 'Augusta image' is inappropriate elsewhere carries the risk of "throwing the baby out with the bathwater", and it would be a tragedy if this applied to the Stimpmeter.

Augusta and the Stimpmeter

So, for starters, let's put the record straight about the link between the Stimpmeter and Augusta. It is true that the Stimpmeter is "Augusta's right arm". Without it Augusta could not have got its lightning-fast greens accepted for the US Masters.

But it was the ability to accurately measure green speed which the Stimpmeter provided for Augusta. Then, of course, it became possible to control and vary green speed. Augusta then elected (quite separately) to create very fast greens - and even then it had to replace its former Bermuda Rye grass and clay sub-soil with a new sand base and a different type of grass - Bent grass (actually Pennncross).

Augusta had the perspicacity to realise that the Stimpmeter could enable them to measure green speed, and that this then made possible controlled variations in that speed. Ever since, the Stimpmeter has been used daily.

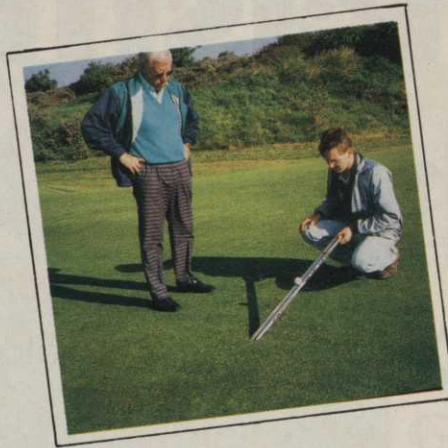
Mr Hord Hardin, Chairman of Augusta National GC, told me during the 1989 US Masters that the Stimpmeter had become an invaluable and indispensable tool to them. "It proves", he said, "that my Board Directors knows what it is doing. We no longer need to rely on hunch and guesswork". He went on to add, "One reason why its so popular with us is because its so simple. Nothing can go wrong with it."

So, the Stimpmeter has become Augusta's "right arm". But Augusta didn't invent it. It didn't start at Augusta although it has come to be associated with Augusta and its lightning fast greens (together with the US Masters and its Green Jackets).

To adopt it over here, therefore, will not be to perpetuate the "Augusta image". Rather, it will be just a long overdue transplant of a powerful American idea which was invented over 40 years ago and for which the United States Golf Association (USGA) has more recently put together a Stimpmeter Instructional Booklet.

The Inventor of the Stimpmeter

The Stimpmeter was actually invented



Three shots of the Stimpmeter in action.



by a Mr Edward S. Stimpson, the 1935 Massachusetts Amateur Champion. Stimpson knew how variations in the speed of consecutive greens - and especially on different parts of the same green-negated the golfer's putting skill. He also knew the frustration of having to rely on subjective 'guesstimates' of green speeds.

So he addressed the problem of how to achieve accurate, objective, and statistically valid measurements of the speed of the putting green. The result of his efforts was the Stimpmeter.

What exactly is the Stimpmeter?

To quote the USGA, "It is a simple accurate device which makes it possible to make a standard measurement of - and place a numerical figure on - the speed of a putting green."

What is the Stimpmeter made of and what are its characteristic features?

It is an extruded aluminium bar, 36 inches long, with a V-shaped groove extending along its entire length. It has a precisely milled ball-release notch 30 inches from the tapered end (the end which rests on the ground). The underside of the tapered end is milled away to reduce bounce as a rolling ball makes contact with the green.

The V-shaped groove has an included angle of 145 degrees thereby supporting a golf ball at two points 1½ inches apart. A ball rolling down the groove has a slight overspin which is thoroughly consistent and has no deleterious effect on the ensuing measurements.

The ball-release notch is so designed that a ball will always be released and start to roll when the Stimpmeter is raised to an angle of approximately 20 degrees from the horizontal. This insures that the velocity of the ball will always be the same when it reaches the tapered end.

How is the Stimpmeter used?

First, you need the Stimpmeter, together with golf balls, 3 tees and a measuring tape.

There are 6 steps to be taken:

Step 1: Select a level area of the green approximately 10' by 10' square. (The level can be checked by laying the Stimpmeter flat on the green and placing a ball in the V-shaped groove. The movement of the ball will show whether or not the green is reasonably level.)

Step 2: Insert a tee on the green near the edge of the area selected to serve as a starting point. Holding the Stimpmeter by the notched end, rest the tapered end on the ground beside the tee and aim it in the direction you intend to roll the ball. Put a ball in the notch and SLOWLY raise that end until the ball is released and starts to roll down the groove. Then, keeping the tapered end on the same spot, repeat the same procedure with two more balls.

Step 2: Insert a tee on the green near the edge of the area selected to serve as a starting point. Holding the Stimpmeter by the notched end, rest the tapered end on the ground beside the tee and aim it in the direction you intend to roll the ball. Put a ball in the notch and SLOWLY RAISE that end until the ball is released and starts to roll down the groove. Then, keeping the tapered end on the same spot, repeat the same procedure with two more balls.

STEP 3: All three balls should come to rest not more than 8" apart. (A pattern larger than 8" is of dubious quality and the three roll series should be repeated). Insert a tee to mark the average stopping distance of the three balls.

Step 4: Repeat Step 2 using the second tee as the starting point and the first tee as the aiming point; i.e. roll a series of three balls along the same line but in the opposite direction.

STEP 5: Repeat Step 3 thereby establishing the average length of the second series of rolls.

STEP 6: Measure the two average distances - for the first and the second series - and calculate their average.

To be continued in next month's issue . . .

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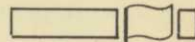
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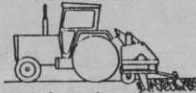
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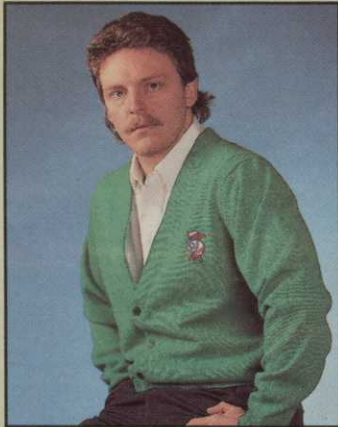
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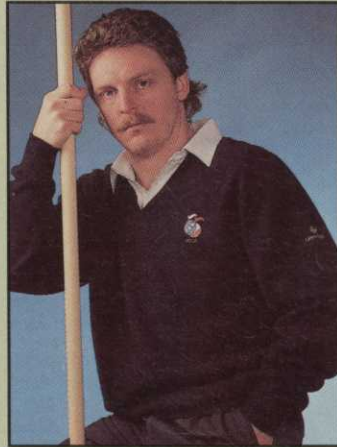


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Sun shines on delegates at Egham



Lord Whitelaw addresses the conference.

Glorious sunshine greeted Saturday's programme – so much so in fact that the lecture theatre became rather warm because of the good weather and also because of the packed audience with some delegates having to sit on the staircases.

The highlight of Saturday, apart from the excellent presentations by the various speakers, was of course the arrival during the morning session of the BIGGA President The Rt. Hon Viscount Whitelaw, CH, MC, who, after

In this our second look at the BIGGA National Conference at Egham, Greenkeeping Management's Sales Director Bill Lynch concludes his view of the proceedings.



An engrossed Lord Whitelaw is pictured with BIGGA Chairman Ivor Scoones (left) and past Chairman Paddy McCarron.

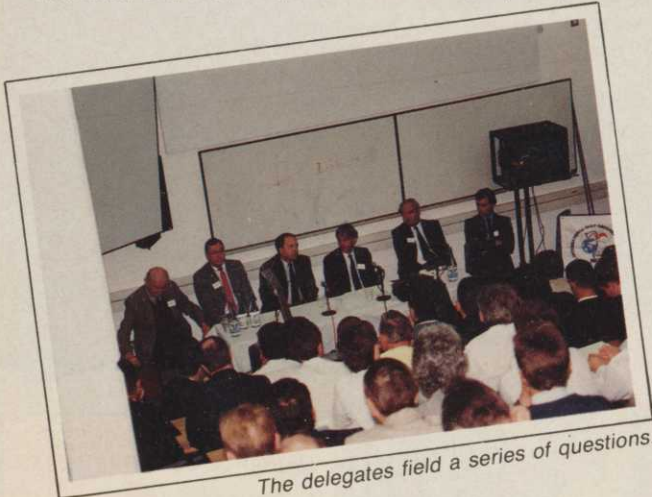


American speaker Jim Latham.

again greeted delegates on Sunday morning, the third and final day of the conference, and made the walk to the Lecture Theatre through the extensive college grounds very pleasant.

The five concluding lecture papers were delivered as articulately as all those previously, with some particularly interesting and unusual slides of the Emirates Golf Club shown by Barry Carter, the Greens Superintendent, during his presentation.

The packed audience once again listened intently to the various speakers and reward-



The delegates field a series of questions.

tations, made a short speech extolling the virtues of well educated greenkeepers managing their courses and applauding the progress BIGGA has made already but also needs to keep on making.

Following lunch the conference sponsors The International Golfers Club, represented by Robert Bonalack, Shaun Jones and Jack McMillan, made a presentation about the services they offer which can bring about reduced costs and greater profitability to clubs.

Once again at the end of the day's proceedings John Millen had to draw to a conclusion the lively question time which was in danger of running into dinner time!

Saturday evening produced another highlight of the three

day conference – the Picture Gallery in the Founders Building of the college – the fabulous setting for the International Golfers Club Reception and the Conference Banquet.

Delegates were able to partake of fine food and wine watched over by the works of some old masters including Turner and Constable. The setting really was most impressive and comparable in its own way to the ambience achieved in the Queens Hall at Cambridge a year earlier.

David Kendal, the after dinner speaker, with his extrovert Yorkshire manner and accent and his loud and lively quick fire delivery certainly kept the assembled company laughing with joke after joke! Will those there ever view their bank manager in the same way again?

After the IGC had been thanked for their gracious hospitality the formal banquet was brought to its conclusion and most delegates withdrew to the bar – where – you've guessed it – David Kendal just kept delivering his prolific output to a continually chuckling audience!

Of course your intrepid reporter in the interests of accurate reporting was compelled to continue working into the early hours as the bottles of Scotch Whisky provided by those popular Irish adopted Scottish course managers David Macindoe and Bill Semple were gradually consumed by a diminishing band of die hards. The last dram was downed around 5.30am and everyone was asleep in bed by 5.35am!!

Glorious sunshine once

ed them all with generous applause.

Following the final question session to the panel of speakers John Millen posed a question to the audience asking if the Association should pursue the policy of holding an annual National Education Conference – the answer was a unanimous and resounding "yes".

The formal proceedings were finally brought to a conclusion by Paddy McCarron, in his last official act as Chairman of BIGGA, when he conducted an eloquent summary of the Conference and thanked the various participants who had made it such a success, including of course John Millen for all his work as Conference Chairman, and the International Golfers Club for their support of the Conference.



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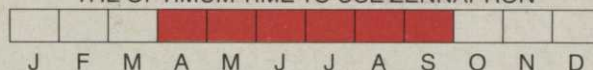


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