To spray 3 weeds, you need a knapsack this big or
miles with killer...

With the new Nomix™ Compact™ there's no cumbersome knapsack, just a handy, 750 ml pack of herbicide which gives you all the weedkilling power of two full knapsacks of conventional water-based herbicide.

The pack simply 'snaps' into the Compact ready for use. There's no mixing, no complicated calibration and no contact with chemicals — the system is completely sealed and leakproof.

Use it around trees and shrubs, on paved areas, along fence lines or keep it in your pick-up to deal instantly with weeds as you find them.

Whatever the job; Nomix has the right herbicide: a choice of weedkillers specially formulated for the Compact by companies like Monsanto, BP and Cyanamid.

Give your back a rest, try the Nomix Compact for size at the special offer price of £70.00 which includes a 750 ml pack of Stirrup herbicide (glyphosate) and 750 mls of Nomix cleaning fluid.

Send the coupon now for more information.

Nomix. A weight off your shoulders.

I would like to try taking the weight off my shoulders with the new Nomix Compact.

Name
Position
Address
Telephone

Complete, then send this coupon in an envelope marked 'FREEPOST Marketing Department, Chipman Limited, The Goods Yard, Horsham, West Sussex RH13 2BB.'

*Calculated on a spray width of 6 inches.
TM: Trademark of Nomix Manufacturing Co., Ltd.
Read the label before you buy; use pesticides safely.
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 twenty-first 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 the members of B.I.G.G.A. that 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!

PS: 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.
If you’ve got one of these...

Having a compact tractor is one thing – using its versatility is another. That’s why Iseki have a full range of attachments to suit your tractor. Attachments designed with your tractor in mind, the right working width for the best productivity, matching tractor to attachment to enable you to get the job done on time – every time.

There are machines for the builder and landscaper, machines for councils and local authorities, a range for golf course and sportsground maintenance, all because Iseki know what you need, to make the most of your tractor. Iseki attachments, because no matter what make you’ve got, we’ve got more of a range, for more of your jobs – no wonder Iseki are the driving force for professional grounds care, horticulture and landscaping.

If you don’t have a compact tractor yet – we’ll even help you with one of those too!

To: Iseki UK Ltd., Broadway, Bourn, Cambridge CB3 7TL.
Tel: 0954 718981. Fax: 0954 719731

Please send me more details on Iseki Attachments

Name
Address

Tel. No. GM

To: ISEKI ATTACHMENTS MORE OF A RANGE FOR MORE OF YOUR JOBS

Tractors • Mowers • Power Equipment • Attachments

June 90
THE NEW NAME IN TOP CLASS TURF PRODUCTION
A FULL RANGE OF TURF FROM GENERAL LANDSCAPING TO GOLF GREENS ETC.

Common Lane, Berwick, Polegate, E. Sussex BN26 6SU
Tel: Alfriston (0323) 870773

RUSHGLEN LTD
From Conception to Completion
Rushglen are the proven experts in Golf Course Construction, alteration and extension.
Their depth of experience, efficiency and attention to detail made them the natural choice for Belton Woods Golf Course - the largest new course in the Country.
Home Farm, Gonerby Lane, Allington, Grantham, Lincs. NG32 2DU
Tel: 0476 590678 Fax: 0476 590675

AQUARITE
An organic fertiliser with iron and a high performance wetting agent, particularly suitable for the relief of compaction, and providing a freer draining soil.
It enhances the penetration of water, assisting irrigation, and reducing evaporation losses.

For further details of this and our other unique products, plus the name of your local distributor
Tel: (0860) 424430
Ritefeed Ltd
Brook St. Mill, Brook St.
Preston PR1 7NH

THE PROFESSIONAL GOLFING MOWER
Ideal for Bunkers and Steep Banks

The Nikken Knapsack fitted with the Hover safety hood is the ideal solution. The engine and sensitive mechanical parts are not in contact with flying sand.
In addition the machine can be used for scrub clearance, hedge trimming, strimming and pruning.

Nikken leads the field for freedom of movement and safe operation.
Send to G&C Trading, Unit 4, Graham Potter Estate, Beech Avenue, Swindon, Wiltshire SN2 1JY
SALES OFFICE 0462 700547 or 0793 513214
by the IGC. Jack McMillan launched at the BIGGA conference in Engham 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 become operational. He has subsequently made three further visits at the request of other golf complexes in France and Switzerland.

The Initiative gives the STRI its growth in the golf industry. Jack, a small wage settlement, can work up to 6,000 pounds projects and indeed individuals.

The Initiative receives considerable interest from the Continent, and surprisingly has met very 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 also has a very busy officer advising both new large greenkeepers on the Continent.

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

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 EMBERS 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!

O N E 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!

T HIS is the 150th year of the Whitby Regatta from August 6th to 8th - 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 go to socialise with fellow greenkeepers.

The courses are expected to be quickly over subscribed and early application is advised. Do not put off as there is still plenty of free time to organise your golf with your wives.

The courses are expected to be quickly over subscribed and early application is advised. Do not put off as there is still plenty of free time to organise your golf with your wives.

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.

REGATTA FUN

Accommodation EMBERS 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!

M ANAGEMENT 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 in-depth 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's 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 put off as there is still plenty of free time to organise your own golf with your wives.

The courses are expected to be quickly over subscribed and early application is advised. Do not put off as there is still plenty of free time to organise your golf with your wives.

Six 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.

Accommodation EMBERS 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!

In this article continues on Page 33.

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
“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 foci lesions, 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, Macromat 1. 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.

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 Coldcote 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.

Macdonald to Design New Golf Course in East Anglia

A NOther 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 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 Coldcote 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.
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 be completed by 1989 members)
PLEASE COMPLETE FULLY IN BLOCK CAPITALS

GREENKEEPER MEMBERSHIP

FULL NAME
HOME ADDRESS
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

REF - GM 6/90
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.
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.

Greenkeeper, West Midlands
Q. I was employed elsewhere before I became a greenkeeper, is there anything I can do to help me unlock the Association can do to help me unlock previous Pension Plan arrangements I've left behind me?
A. Often it can benefit people to arrange for a transfer of their pension from one scheme to another. The Association of Aldwarke Manor have been arranged for a transfer value to the BIGGA Pension Plan. When the transfer figure is provided, the Association can arrange for the transfer of the pension. The member can then contact their old scheme to make sure that all their contributions are recorded.

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. If you are employed at a club where there is no Pension Plan, it is important to consider the possibility of starting a plan. The Pension Plan can provide a significant benefit in the future. It can help to ensure that you have enough money to retire comfortably. Therefore, it is essential to start one of your own, even if it is at a small level.

Assistant Greenkeeper, Kent
Q. I have just started in Greenkeeping. Am I 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 it may seem to be expensive. But remember payment can start from £22.50 per month and full benefits can be taken from the age of 50. A monthly contribution is necessary and the plan can be taken up to the age of 50. If you are planning to change jobs, you don't have the problem of many people who have left their job at 40 and this is having to decide what to do with their pension. Therefore, it is important to start a plan early, before you have to make a difficult decision.

Deputy Head Greenkeeper, Hampshire
Q. My club is at last thinking about a Pension Scheme and you don't own a club or start a club for yourself?
A. The main benefit of having a Pension Plan is the potential for salary to be increased. The Pension Plan is designed to provide extra income for members when they retire. Therefore, it is important to encourage your club to consider starting a Pension Plan.

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. In fact, there are a variety of arrangements available to BIGGA members depending on individual circumstances. The basic idea is to provide a member with a plan for the purchase of a house or land which is available to them. The plan is designed to make the purchase possible and it is ideal for members who are living in tied club accommodation.

Head Greenkeeper, Scotland
Q. I am in a club scheme which I want to say in but I think I should consider boosting my prospective pension benefits by paying 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 idea is that the plan benefits can be spread over the years of pension investment, depending on the type of plan and the individual's circumstances. Therefore, it is important to consider the plan and its benefits.

Thank you for your best wishes. Naturally financial matters. In fact greenkeepers, however have often been very interested to hear what I have to say to their husbands or mortgages for their pension. Why some have got some investment in the future. And some have got some investment for capital growth. All these subjects have been discussed but I am not your best wish to talk to you, and I am more...

So for completely free pension and financial advice through BIGGA either call Sam or Debbie on 03743 38/12/1/ at Aldwarke Manor, or write to Neil Thomas, Executive Director, BIGGA, BIGGA Pensions, Aldwarke Manor, Aldwarke, Alton, Y06 2NF.

Thank you for your best wishes. Naturally financial matters. In fact greenkeepers, however have often been very interested to hear what I have to say to their husbands or mortgages for their pension. Why some have got some investment in the future. And some have got some investment for capital growth. All these subjects have been discussed but I am not your best wish to talk to you, and I am more...
No matter what size workshop you have, Mower Machine Maintenance can offer you a modular concept grinder which will guarantee a perfect finish, with 5 superb models to choose from.

These incorporate advanced safety features such as totally enclosed canopy and water coolant to provide the operator with an excellent working environment.

The top of the range machine, the Supreme Auto Leader represents the ultimate in mower grinding technology with features unequalled in any other machine. This is the only machine currently on the market which can grind cylinders and bottom blades with equal efficiency, utilising variable speed spin and traverse drives.

The standard features on our machines are:

- Single blade relief grinding
- In frame grinding
- Variable speed spin and traverse drives
  - Self contained coolant
  - Automatic infeed
  - Dual purpose wheelhead incorporating two grinding wheels enables cylinders and bottom blades to be ground with equal efficiency
- Bottom blade bracket and selected inframe mounting brackets
- Well proven technology and modern design

With these features we have the leading edge.
IRRIGATION

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.

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 area. 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
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 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
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 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 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.

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.

- Professional Sportsturf Design (NW) Ltd provides a specialist Consulting Agency Service for golf courses and other sports area.

The authors – John Hacker, left, and Mike Harbridge.
We are not saying a word!

"The Toro 650 automatic watering system allows me total freedom to work on the golf course as and when I decide. Top dressing, fertilisers, slitting and watering - the Toro 650 automatic watering system helps at every stage of my daily maintenance programme. I don't bother watching weather forecasts any more!"

Bob Moreton - Head Greenkeeper
The Berkshire Golf Club

"All the remedial work we carry out at Wimbledon is totally reliant on the automatic watering system... The Toro 650 system gives me complete control of my own environment - especially when I need to cut just nine days after seeding!"

Jim Thorne - Head Groundsman
All England Lawn Tennis & Croquet Club

"It's marvellous, the Toro system - a mixture of 650 and 690 sprinklers really is an invaluable aid to our day-to-day maintenance programme. Installed sixteen years ago, I cannot remember experiencing any serious problems with the watering system... Maintenance? We do most of it ourselves!"

Gordon Hiscock - Head Groundsman
Ascot Racecourse

"Water when I need it is essential to help maintain the Wembley pitch which requires constant overseeding. The Toro 650 automatic system is an important preparation tool which allows my staff to work on the pitch between watering - imagine it, it used to take 8 hours to put water on using mechanical sprinklers!"

Steve Tingley - Head Groundsman
Wembley Stadium Limited

"The best bowling surfaces are undoubtedly those which are firm, consistent in terms of speed - and as level as one can possibly make them. Ideally, a mixture of 20% soil to 80% sand helps promote excellent quality turf... The Toro 650 design really puts the groundsman in control..."

David Bryant - World Singles Champion
Willie Wood - World Singles Finalist

To obtain more details and learn just how a Toro automatic watering system would help you improve your sports turf (or landscape) management programme even more, simply telephone us or write. We will then be more than happy to say a word or two on the subject!

TORO
Excellence in Irrigation
TORO IRRIGATION LIMITED
Unit 7, Millstream Trading Estate
Ringwood, Hampshire BH24 3SD
Telephone 0425-476261
FURTHER READING ON IRRIGATION
• Turf Management for Golf Courses: James B. Beard, 1982, Burgess.
• Turfgrass - Science and Culture: James B. Beard, 1973, Prentice-Hall.


IRRIATION CONSULTANTS
Tailored to your needs, an automatic irrigation system can represent a considerable purchase. So choose wisely - with the professional assistance of York, Parker & Martin.

York, Parker and Martin form what is probably Europe’s most knowledgeable and experienced team of independent irrigation design engineers.

Their business is that of helping intending golf course and landscape irrigation system purchasers to obtain the most cost effective and efficient system to a budget, a system which is installed professionally - under supervision - and one which provides the most satisfying long term service...

For further details, talk to York, Parker & Martin today. Phone, fax or write for an appointment.

4, PEDLARS WALK, RINGWOOD, HAMPSHIRE BH24 1YW (U.K.)
TEL: 0425-472900
FAX: 0425-471213
propriate 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-

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

NORTH Staffs Irrigation Company is a founder member of the British Turf Irrigation Association and as such has a wealth of experience and knowledge about the industry. A family run business of father and two sons, the other members of the team are chosen with care to ensure high class workmanship and a real sense of a job well done which has always been the watchword of the company.

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.

In short, a family company without vast overheads but with a hand picked team of qualified engineers.

Cont. on Page 18

---

Golf course irrigation?

CHOOSE THE SOUTH's SPECIALISTS...

Yes, if your club is considering up-dating or extending its present irrigation system or you are thinking of investing in this important “Greenkeeper’s Aid”, have a word with ISS. Established for over a decade, ISS have years of experience of golfcourse irrigation systems design, installation and maintenance –this experience is yours for the asking. ISS will gladly visit your course for a chat -phone or write to them now!

IRRIGATION SYSTEMS & SERVICE

Unit 6, The Bourne Centre, Salisbury Business Park
Southampton Road, Salisbury, Wiltshire
Telephone: (0722) 412510
FLANDERBLADE LTD

A family firm with over twenty years experience (ten as our own company)

We design, supply and install irrigation systems.

Maintence contracts available within the Home Counties and the London area

Call Mr. or Mrs. Laker
Tel (0903) 724545. Mobile (0831) 200072
Flanderblade Ltd., 20 Whiteacre,
Littlehampton, West Sussex, BN17 7JA
FULL MEMBER OF BTIA

North Staffs Irrigation Co.
IVY MILL, LONGTON ROAD, STONE, STAFFORDSHIRE

Value for money at the sign of the water mill. We are big enough to cope with all your Irrigation requirements and small enough to care about every aspect of our dealings with you.

A family run business of qualified Engineers who really enjoy their work. Our Principal plays golf when he’s not working and fully appreciates the needs of the course managers. We can offer your Golf Club the technology of today at prices well below some of the bigger companies.

At the end of the day the system has to work.

OURS DO, BEAUTIFULLY.

Recently completed contracts include Royal Lytham & St. Annes (Lancs), Sherwood Forest (Nottingham), Fairhaven (Lancs), etc., etc.

We also undertake work at Tennis Clubs, Bowling Greens, Football Grounds and all other sports facilities.

Telephone us on STONE (0785) 812706

IRRIGATION IS OUR BUSINESS

WE MANUFACTURE, DESIGN, INSTALL SYSTEMS FOR SPORTS, LANDSCAPE, AMENITY AREAS

ADVICE AND QUOTATIONS FREE OF CHARGE

BRITISH OVERHEAD IRRIGATION LTD

BEST BUY B.O.I.L. IRRIGATION SPECIALISTS SINCE 1923

The Green, Upper Halliford,
Shepperton, Middlesex, TW17 8RY.
Tel: (0932) 788301. Fax: (0932) 780437.
Telex: 928767 Kosel G

IRRIGATION, PUMPING STATIONS, PIPEWORK AND FITTINGS, AUTOMATIC CONTROLS, Drip, Micro-Jet and Pop-up systems, Self-TRAVELLING SPRINKLERS
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.

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.

Mayfive Trenchers

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.

Mayfive has also moved from Deeside to extensive new facilities at Whitchurch, Shropshire. Major investment in new product development together with an unmatched reputation for experience, quality and service will ensure that Mayfive - with the widest range of trenching equipment and spares available - will continue its rapid growth to a position of dominance in the market.

The Mayfive range of pedestrian, ride-on and track mounted trenchers is complimented by a spares facility providing the finest quality replacement parts for all models in current use including Barber-Greene and Cleveland equipment and also now including rotary carbide picks for all trenchers and cold planing machines.

Par 4 Irrigation System Service

For the installation, maintenance and repair of irrigation systems on golf courses, bowling greens, tennis courts and any playing areas, farms and garden sites.

Unit 18, Camphill Close, Dallamires Lane, Ripon, N. Yorks, HG4 1TT
Tel: (0765) 2175. Fax: (0765) 3488. Proprietors: E. B. and L. Simms

Famura Launched

Zorbit The New Turf Wetting Agent

Formulated Specifically for Use on Fine Turf

Result: Greenkeepers Very Pleased. Competitors Not Pleased At All!

Stone Hill, Egerton, Ashford, Kent, TN27 9DU. Telephone (023 376) 241/581

June 90
**PVC PRESSURE PIPEWORK FOR IRRIGATION**

**PVC LAND DRAINAGE SYSTEMS**

Stocked in depth for fast efficient service at sixteen locations countrywide:—

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERTH</td>
<td>0738 20081-2</td>
</tr>
<tr>
<td>GLASGOW</td>
<td>041 778 5001</td>
</tr>
<tr>
<td>EDINBURGH</td>
<td>031 552 8181</td>
</tr>
<tr>
<td>NORTH SHIELDS</td>
<td>091 257 8125</td>
</tr>
<tr>
<td>BOLTON</td>
<td>0204 388388</td>
</tr>
<tr>
<td>WARRINGTON</td>
<td>0925 814300</td>
</tr>
<tr>
<td>STOKE-ON-TRENT</td>
<td>0782 311311</td>
</tr>
<tr>
<td>LONG EATON (NOTTS)</td>
<td>0602 736001</td>
</tr>
<tr>
<td>WOLVERHAMPTON</td>
<td>0902 409341</td>
</tr>
<tr>
<td>BIRMINGHAM</td>
<td>021 772 4226</td>
</tr>
<tr>
<td>BRIDGENGD</td>
<td>0656 661331</td>
</tr>
<tr>
<td>BRISTOL</td>
<td>0272 384114</td>
</tr>
<tr>
<td>STEVENAGE</td>
<td>0438 365371</td>
</tr>
<tr>
<td>BIFLEET</td>
<td>0932 338111</td>
</tr>
<tr>
<td>HORSAM</td>
<td>0403 69961</td>
</tr>
<tr>
<td>FAREHAM</td>
<td>0329 232129</td>
</tr>
</tbody>
</table>

**CAPPER P-C PIPEWORK SYSTEMS**

Tyseley Industrial Estate
Seeleys Road, Greet
Birmingham B11 2LP
Tel: 021 773 1331

The leading UK distributor of plastic pipework products.
RANSOMES ANNOUNCE NEW APPOINTMENTS

RANSOMES Sims & Jeffries 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.

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 Huxley’s 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 Huxley’s 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 Huxley’s Grass Machinery.

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.

NEW CHAIRMAN FOR NTC

ON 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 LAM 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 coordinating 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.

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 COURSE MANAGER FOR COLLINGTREE

Peter Jones has been appointed as Collingtree’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 in Copenhagen. He comes to Collingtree from Henley Golf Club.
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 Caerleon (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. 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 Avoncroft 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 lease set of overalls was Steven Evans, these were donated by the local Iseki dealer Mr Chris Hopkins. Winner of a bodywarmer donated by Peter Hampton was John Carter. Three golf balls were each won by Ithwal 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 Tyrion 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:


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

SURREY SECTION

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

At the last count Surrey had 226 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

offer the following

1. AERATION

Verti Drain hire/Twose Turf Conditioner & Robin Dagger - we are, at present running 4 Verti Drains (various sizes) and can offer time sizes from 12" 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.

Towse - 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.

2. DRAINAGE/SANDSLITTING

Wizz Wheel Trencher + Backpack 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.

3. CONSTRUCTION/ALTERATION

Should you find the work load too great on your own greenstaff regarding construction/alterations of greens tees and bunkers, etc., we would be pleased to submit a quotation for such projects.

Paul Wright, Aeration & Drainage Services, 20 Westminster Close, Eastbourne, Sussex BN22 0LQ
Tel: Eastbourne (0323) 506725 Mobile: (0860) 838241. Fax: (0323) 411980
it 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, who has published 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 marvelous meal and saw Jack McMillan presented with a statue 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, who sponsored the meeting, as a great success. Our thanks go to ICI, who sponsored the meeting. The prizes as follows: 1st I. Hogg, 138 net; 2nd Wood, net 70 handicap. The prizes were kindly donated by Devon Garden Machinery, Parkins and Ed Simcox of Jacobsen.

Two more things. One, the new uniform styles will be on display and available to purchase at The Cresta Cup. Secondly, the committee wishes to say your views, in writing, on the Master Greenkeepers Certificate. These may be posted to me: 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 025 320 1250.

**PHIL BALDOW**

**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 also 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., Blead 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, Pattnisons and finally R. Aitken.


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

Category 0-9 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 Philip Phillips, Porters Park, net 72 off 12 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...
afternoon competition was a stableford and Chris Carpenter again came home ahead of the field with 40 points followed closely behind by David Clugige from Muswell Hill with 39 points. Our section has had an influx of new members and we welcome the school.

New members: Terry Colville, North Middlesex; Doug Smith, Wanstead; Norman Corpe Hatfield & London; Steve Mullet, Sandy Lodge; Peter Moe, 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 Milie, Manor of Grove; Lee Durkley, Pinner Hill; N. Coward, Hanbury Manor; Keith Knowles, Unattached; Lorenzo Geraghty, London Borough of Finchley; Gary Stanwell, Lanbury Manor; Arthur Baker, Borough of Brombourne; Stuart Green, Bushy 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 horde 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 Bob 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 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 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 Galleys, 79-4-75.


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 Isleki 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 Huddlestone, 35pts and no passes.

First and second in the 0-9 section were Dave Wells scored (40). Many thanks to the club captain and members for their help on this occasion.

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

Our thanks to Mr. Jim Cowan and Sam Sylvester 35 and 33 points. 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.


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, Pat- tisons, SISIS, Town and Country, Rushbrook’s, Toro and Colliers.

MICK LATHROPE

EAST OF ENGLAND SECTION

UR 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, owner of Johnstone’s Seeds. The subject was ‘Golf Course Grasses and Wild Flowers’. This proved a most interesting topic to the members present.

Our thanks to Mr. Jim Cowan and Sam Sylvester 35 and 33 points.

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 SWINGER

Cont. on Page 24

THE SS100... FIRST ON THE GREEN

IT GRADES...IT SHREDS...IT BLEND... Now, from GRADEALL comes a new concept in greening. A unique combination of blending, spreading and grading in a single unit that gives you:

• MAXIMUM MOBILITY
• HIGH PERFORMANCE RELIABILITY
• MAXIMUM TONNAGE OF QUALITY TOP DRESSING
• MINIMUM EFFORT

The SS100 performs aggressively on even the poorest of conditions. Producing high quality loose and manageable soil. In fact, the SS100 turns tough, lumpy organic humus into turnable compost.

From cricket tables, to bowling greens, to golf greens and fairways...indeed any turf area...you’ll benefit from the SS100’s unique capabilities.

CALL US...

If you want to make the GRADE!
SOUTH COAST SECTION

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

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.

ROSES MATCH - Bury G.C.

The tournament was won by J. Hooper and the scratch prize was won by N. Wooffrey - 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.

We heartily thank our society friends for their help and hospitality.

I have spoken to the administrator of 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 Barnhurst 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 Magazine, if one arrives at all.

As for the Ransomes quip . . . ouch! Below the belt. But serious 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 let me know. 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 information only. If you forget to put pen to paper and let me know, and everyone else know what's going on in your neck of the woods.

BOB DENNIS

NORTH-WEST SECTION

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.

To my very dear friend and fellow greenkeeper, J. Hooper and the scratch prize was won by N. Wooffrey - 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.

NORTHERN SECTION

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 takes place.

BETT CORST

NORTHERN SECTION

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 takes place.

BETT CORST

NORTHERN SECTION

The spring tournament took place under glorious sunshine at Selby Golf Club.

Thirty nine members played the second round of the golf and twelve of them qualified for the regional final of the Iseki tournament. Some late news from across the Pennines - the annual Battle of the Roses 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.

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. Wooffrey - 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 Barnhurst 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 Magazine, if one arrives at all.

As for the Ransomes quip . . . ouch! Below the belt. But serious 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 let me know. Better still why not throw a few stories my way I'd love to hear from you, and in fact all the members.

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 ineffectives. As for the Ransomes quip . . . ouch! Below the belt. But serious 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 let me know. 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 information only. If you forget to put pen to paper and let me know, and everyone else know what's going on in your neck of the woods.
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.

Delivered to Mr. Welton of Wymeswold, Leicester.
- Fitted to customers' own tractors, new or second hand
- All British pumps, motors and bearings

Delivered to Mr. Fryer at Warrington
- Ease of operation
- 50 yards of turf cut in 2½ minutes
- Little maintenance required

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.

A. & A. Watton, Turf Equipment (Bournemouth) Ltd., 20 Headswell Crescent, Redhill, Bournemouth. Tel: (0202) 515067
**PRODUCT FOCUS**

**JACOBSEN TURFCAT NOW OFFERS FOUR-WHEEL DRIVE TRACTION**

Jacobsen's versatile Turfcat 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 Turfcat T422D with four-wheel drive.

The Turfcat 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.

**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 manouverable 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.

**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 cover...".

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

**BOURGEIN EXPORT 700 SPORTSFIELD TRENCHER**

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 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.
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).
To create a finer putting surface...

The Ransomes GT now with new 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
Positive "notch" type adjusters for cutting reel to bottom blade by 0.04mm (.0015") increments.

Positive "notch" type adjusters for height of cut setting by 0.06mm (.0025") increments.

Clutch for Verti-Groom drive.

Hardened steel blades — easily replaceable.

Free floating Verti-Groom reel to follow undulations.

Verti-Groom located ahead of grooved roller, for minimum "rollerbase" and consistent cutting height.

Hand wheel for Verti-Groom depth adjustment and lifting Verti-Groom out of work.

...you need the finest mowing precision.

Greens Unit and Verti-Groom.

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.

THE FINEST MOWING PRECISION MONEY CAN BUY.

A RANSOMES GROUP COMPANY

World leaders in turf maintenance machinery.
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.

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.

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 percent 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.

Earthworms are also important to the nutrient availability of the soil. As they feed, they deposit digested organic material 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 increases, 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.
CUT COSTS NOT QUALITY

**LESCO 300D**

For sheer value the LESCO 300D Greens Mower cannot be beaten. A combination of superior hydraulics with proven quality components, Lesco have engineered the tournament Greens Mower.

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.

The Greenkeepers dream – simplicity with quality.

---

**THE TURF CARE TEAM**

The Brouwer turf care team includes a roller, mini turf cutter, five gang fairway mower and a vac.

---

**CONTACT CLIVE LOCKWOOD**

CDC Horticultural Equipment Ltd
Chapel Works Waldingfield Woodbridge Suffolk IP12 4PT
Tel 0473 36 791 Fax 0473 36 370
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.

- **Elmwood College**
  - Location: Cupar, Fife, Scotland.
  - Contact: Mike Taylor
  - Phone: (0334) 52781

- **Oatridge Agricultural College**
  - Location: Ecclesmachan, Broxburn, Scotland.
  - Contact: Quentin Allardice
  - Phone: (0506) 854387

- **Cheshire College of Agriculture and Horticulture**
  - Location: Reaseheath, Nantwich, Cheshire.
  - Contact: Dennis Mortram
  - Phone: (0270) 625131

- **Askham Bryan College**
  - Location: Askham Bryan, York.
  - Contact: Nick Bisset
  - Phone: (0904) 702121

- **Warwickshire College**
  - Location: Moreton Morrell, Warwick.
  - Contact: Hugh Nunn and Roy Nelson
  - Phone: (0926) 651367

- **Sparsholt College**
  - Location: Sparsholt, Hants.
  - Contact: Bob Young
  - Phone: 096 272 441

- **Plumpton College**
  - Location: Plumpton, Lewes.
  - Contact: David Blackmur
  - Phone: (0223) 890454

**Approved Colleges for Greenkeeper Training**

- **Langside College**
  - Location: Buchanan Drive, Rutherglen, Glasgow, Scotland.
  - Contact: Archie Morrison
  - Phone: (041) 647 6300

- **Lancashire College**
  - Location: Myerscough Hall, Bilsborrow, Preston, Lancs.
  - Contact: John Hacker
  - Phone: (0995) 40611

- **Teagasc National Botanic Gardens**
  - Location: Glasnevin, Dublin 9, Ireland.
  - Contact: Pat Suttle
  - Phone: (00) 01 371 636

- **Welsh College**
  - Location: Northop, Mold, Clwyd, Wales.
  - Contact: Graham Wright
  - Phone: (035286) 861

- **Oaklands College**
  - Location: St Albans, Herts.
  - Contact: Ian Merrick
  - Phone: (0727) 50651

- **Cannington College**
  - Location: Cannington, Bridgwater, Somerset.
  - Contact: Nick Rigden
  - Phone: (0278) 652226

The Greenkeepers Training Committee has approved colleges for greenkeeper training.
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 cost £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.

M A S T E R
GREENKEEPER
CERTIFICATE

several members are
expecting to take advantage of
the magical 200 credits which will
then allow them on
to Stages 2 and 3 of the
Certificate.

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

Golf Clubs are registering
the full Greenkeeping Staff on
to 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 ac-
crediting 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 at-
tained 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
definite and also the Credits Report
example on the many ways of
achieving Stage 1. If anyone
has any questions about the
MGC please ring me at Head-
quarters. Remember the
Master Greenkeeper Cer-
tificate is the most prestigious
award in our profession based
on both experience and
education.

David Golding
Education Officer

BIGGA Education Officer David
Golding.

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

Section 9. Golf
Any 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 noti-
fied of the result within two
months and if unsuccessful can
appeal to the BIGGA Education Sub-
Committee within one month.

M A S T E R
GREENKEEPER
CERTIFICATE

THERE are nine sub-
sections, all of which must be
passed. Section 1 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
down of 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.
drainage, xii. 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
a general attitude to work from
the point of view of the golfer,
dress, welfare, accommodation
and training programmes on
site. This will involve a
number of 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
cleaning), compliance with
appropriate safety regulations,
storage of tools and equip-
ment, also the current state of
repairs of buildings. Questions
will be asked in the following
areas: i. maintenance, ii.
legislation and iii. shed
condition.

Section 4. Budget
Management.

The wider 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 discus-
sion. The important elements
are therefore responsibility for
the budget within members
Committees. NB. Lack of
direct involvement with setting
or servicing a budget by
whatever means will be
regarded as a disadvantage.
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 construc-
tion 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:

1. 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,
other records are necessary to
achieve an adequate level of

M A S T E R
GREENKEEPER
CERTIFICATE

Details of Stage Two

M A S T E R
GREENKEEPER
CERTIFICATE

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

1 Plants and Growth, Trees

Grasses and Turf: 1.1 Recognise
and evaluate the more common
green 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 trans-
portation.

1.4 Recognise the effects of
plant growth and the rela-
tionship 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 com-
position of turf. 1.6 Explain the
methods involved in restoring
and improving botanical com-
position of turf. 1.7 Explain the
consequences of changing
maintenance operations on the
survival and development of
greenkeepers. 1.8 Recognise
changes in general turf ap-
pearances, composition and
range of plants. 1.9 Recognise
environmental factors influ-
encing range of plants found
on parkland, heathland, moorland
and links courses. 2.0 Explain
how grasses are selected,
bred and bred up for sales by
plant breeders.

Cont. on page 34.
Cont. from Page 33.

**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.

**Soils and Water**

1.8 Define 'soil organic matter' and explain the role it plays in nutrient status, pH, water retention, cation exchange capacity and thatching. 1.9 Recognise the principles of land drainage and modern drainage methods. 1.11 Explain the common terms

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 effects of regular use of different types. 1. 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 straight; d. slow release; e. liquid applications; f. prilled; g. base dressing; h. top dressing. 2.3 Explain 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 fertiliser use: a. inorganic; b. organic; c. compounds and straight; d. slow release; e. liquid applications; f. prilled; g. base dressing; h. top dressing.

2.6 Utilise a sound understanding of fertiliser use: a. inorganic; b. organic; c. compounds and straight; d. slow release; e. liquid applications; f. prilled; g. base dressing; h. top dressing.

2.7 Explain the importance of chemical and biological controls used on weeds. 2.8 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 regulators.

2.8 Describe various methods and rates of fertiliser application. 2.9 Relate the effect of fertilisers on soil pH. 2.10 Describe the fertiliser requirements for specific swards in different situations (sand, USGA, links, heath, parkland).

3 - Machinery; Health, Safety and Welfare

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 regulators.

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 regulators.

---

**WE OFFER**

- City & Guilds of London Qualifications.
- Opportunities to work on Golf Courses in Florida.
- The use of £200,000+ worth of turf machinery.
- Residential Accommodation.
- Excellent Career Opportunities.
- BIGGA Approved College.

Contact: Liz James or John Hacker

LANCASTER COLLEGE OF AGRICULTURE AND HORTICULTURE
Myerscough Hall, Bilsborrow, Preston, Lancs, PR3 0RY. Tel: 0995 406111

---

**EDUCATION**

**Cont. on Page 35.**
machinery. Leasing, hire purchase, depreciation systems. Describe how to complete on analytical cash book and deal with petty cash.

3.1 Explain the benefits of golf courses to the localities in which they are situated: acting as reserves for wildlife and plants. Improving the attractiveness of an area to developers and industrialists who are relocating. Explain the role of golf course staff in relation to the "corporate image" of the golf club from above. 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.

JIMMY McLAUGHLIN – MERCHANTS OF EDINBURGH GOLF CLUB

Jimmy McLaughlin began his greenkeeping career in 1969 as a 15-year-old apprentice at Kingskow Green 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 10th 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 an eight years.

"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.
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.

No other publication can boast such penetration to the readership in this particular field.

The figures speak for themselves. No other magazine can provide the opportunity for response to your job advertisements that Greenkeeping Management does.

A job advertisement in the pages of this magazine is most likely to attract the kind of applicant you require. Whether it be a BIGGA member or another suitably qualified person. Greenkeeping Management can form the bridge between client and applicant.

My message is: “Take advantage of Greenkeeping Management to place a job advertisement. It’s BIGGA and better”

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?

BUCHER MANUFACTURERS OF HIGH QUALITY PROFESSIONAL TURF MACHINERY

For golf course and local authority use, all with steep slope capacity, four wheel drive, four wheel steer tractors and two wheel drive pedestrian machines.

We would like to wish our North Eastern Dealer – Tony Chambers and all his Staff at SHORTS OF WHITBURN

Every success for the future and a continued close working relationship.

BUCHER GUYER (UK) LTD
Unit 17, Stafford Park 12, Telford,
Shropshire TF3 3BJ.
Tel: 0952 290022. Fax: 0952 292844

A NEW COMBINATION OF POWER & SAFETY

THE ALL-IN-ONE CUTTER

The Allen Reciprocator features two 20-tooth, reciprocating blades that dramatically reduce the danger of debris becoming flying projectiles and prevent the kickback that is normally caused when a blade strikes a fixed object.

Powered by a 22.5cc Zenoah engine with electronic ignition, this unique professional petrol trimmer provides the durability and performance of a steel blade but the safety and versatility of a nylon head.

Send for full details NOW!

ALLEN POWER EQUIPMENT LTD,
The Broadway, Didcot, Oxon. OX11 8ES.
Tel: 0235 813936

Please send Allen Reciprocator details

NAME
ADDRESS
POSTCODE

Tick if demonstration required.
WHEN Mr J. Bland Short set up his blacksmith’s business in Whitburn in 1797 it was in a 16th 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 professional 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.

Congratulations to a valued dealer.
You’ve never been short of experience . . . now you’re not short of space!

Pace Setter
Brushcutters • Hedge Trimmers • Augers
Water Pumps • Blowers

VANGUARD by
A new dimension in
Power and Performance
SHORTS OF WHITBURN
Briggs & Stratton Service Dealers and suppliers of VANGUARD OHV ENGINES

Shorts of Whitburn
Established 1797
(Prop. T.A. Chambers)

SPECIALISTS IN GRASS MACHINERY SALES AND SERVICE

With nearly one hundred years experience serving North Eastern golf clubs, this company has built a reputation that is second to none.

Now with our new larger premises we have even greater resources at your disposal.

• Nine qualified service engineers
• Toro dealers for the North East
• Four radio controlled vehicles
• Agents for all leading engine manufacturers

MILL LANE WORKS, MILL LANE, WHITBURN, SUNDERLAND, SR6 7NA
TELEPHONE: WEARSIDE 529 2100
FAX: 529 5048
Confirmed Exhibitors include:

Barebors, Inc  
Better Methods Europe  
Britag Industries  
British Seed Houses  
J.I. Case Europe Ltd  
CDC Horticultural Equipment Ltd  
Cleveland Sitesafe  
Cooper-Clarke  
Euroturfcare  
Farmura Ltd  
Ford New Holland  
Hayter  
Eric Hunter Grinders  
Hurstridge Products  
Huxleys Grass Machinery  
I.C.I.  
I/C Distributors  
Inturf  
Iseki U.K. Ltd  
Kubota (U.K.) Ltd  
Lely (U.K.) Ltd  
Lindum Turf  
Mayfive Ltd  
H. Pattisson & Co. Ltd  
Colin Price Terralift  
Prime Watermen  
Ransomes  
Rolawn  
Sierra U.K. Ltd  
Supaturf Products Ltd  
Synchemicals-Vitax Ltd  
Tacit  
Tarmac Roadstone Ltd  
Turfland  
Watermation

FULL SHELL SCHEME - £85 PER SQUARE METRE  
SPACE ONLY - £75 PER SQUARE METRE  
Both Full Shell Scheme and Space Only includes carpet together with cleaning service

For Exhibition details and brochure please contact:  
Debbie J. Savage, BIGGA, Aldwark Manor, Aldwark, Alne, York, North Yorkshire, Y06 2NF  
Tel: 03473-581/582. Fax: 03473 8864

Exhibition and Seminar Schedule  
Mon 21 & Tues 23: All Day Seminars and Workshop Sessions.  
Wed. 23, Thurs 24, and Fri 25: Exhibition and General Seminars.
FOR ALL YOUR VERTIDRAINING REQUIREMENTS

BRIAN P. BAYLEY LTD
SPORTSFIELD AND LAND DRAINAGE CONTRACTORS. CONSULTANTS AND DESIGNERS. CIVIL ENGINEERING CONTRACTORS.

THE CHESTNUTS, CLIFTON CAMPVILLE,
TAMWORTH, STAFFS B79 0BW

TEL: 0827 86 396 or 404
FAX: 0827 86 643

SANDSPREADING
CONSTRUCTION
DRAINAGE
OVERSEEDING

WESEXF
Compact Tractor Attachments

Golf Course Machinery
Designed for both compact and full size tractors, Wessex machinery can be found on many of the leading golf courses. Sweepers for grass clippings and leaves, rotary and flail mowers for rough and semi-rough, the GR Pick-up mower for one pass cutting, collecting and scarifying, even wood chippers turning waste timber into chips for pathways.

NEW PORTABLE DIAGNOSTIC MICROSCOPES FOR TURF GRASS INDUSTRY

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 foliar 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.

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

Variable magnification for more detail of grass disease etc.

For further information contact: Custom Power Ltd., 16 Hickstead Rise, Woodham Village, Co. Durham DL5 4TP. Telephone (091) 4888768

June 90
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 Planting, Cultivation, and Grounds Management, the National Certificate in Groundsmanship and Greenkeeping and the National Diploma in Turf Science and Grassland 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 Hackett, 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 worked very hard 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 placements 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 Peterborough itself was the half hourly line from Shearman's Wath, West Ashby, owned and designed by Mr Ernie Wright.

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

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 Shearmans'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, with a conference and function suite. The 25 bay floodlit driving range is overlooked by the VIP lounge. The complex comprises an 18 hole golf course, bar and restaurant, with a conference and function suite. The 25 bay floodlit driving range is overlooked by the VIP lounge.

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.

GREAT GARDENS DESIGN LTD

GREAT GARDENS DESIGN LTD has over 25 years experience in undertaking earthworks for local authorities and private organisations. His experience in sporting development, landscaping of landscapes 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 independent to the company that is invaluable.

Jeff Taylor is Chief Executive of the Coblands Group of which Coblands Landscapes Ltd has over 25 years of experience as contractors in public and private projects. The company provides a complete landscaping service including construction of sports playing fields and all types of amenity planting and landscaping treatments. They have won numerous awards in 10 years.

Bob Brown is Managing Director of E.H. Brown & Son Ltd, a family business established in 1947.
The Team for the Nineties

Standard Golf - The finest most complete range of Golf Course Accessories, from Ball Washes to Benches, from Flagstaffs to Fairway Markers, from Rakes to Rope Stakes, everything you need to make your course more playable.

Quantum Green - The finest of all Fertilisers. All nutrients contained in each Mini-Granule with "Didin" which slows down the release of Nitrogen, avoiding large flushes of growth after application.

Fine Turf Spring/Summer 18:0:0 + 2% Mg, 12:0:6 + 2% Mg.

Wetta-Soil - The Australian market leader. This wetting agent gives an effective even wetting of water repellent soils, normally with one application per year.

Bio-Vegetal - The organic soil conditioner which breaks down the fibre and thatch, converting it to nutrients to feed the living grass.

MAXWELL HART

Our experience is your best guarantee

For details on any of the above products write to:
H.Q. Maxwell Hart Ltd, Winnersh, Wokingham, Berks. RG11 5HF
or Telephone: Wokingham (0734) 785655 / Warrington (0925) 825501

"Didin" is a trade mark of SKW Trostberg AG
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 giant 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."
We've developed some strong attachments for the Cushman Turf-Truckster.™

And so will you.

No wonder some golf course Greenkeepers have grown attached to their Cushman Turf-Trucksters. Nothing even comes close to fulfilling as many functions with such beautiful results. It's state-of-the-art turf maintenance machinery in a class by itself.

A superior system.

More than a dozen attachments and implements can be interchanged with a minimum amount of effort, turning a Turf-Truckster into an entire fleet of turf maintenance vehicles. You can spray, aerate, pick up cores, haul, dump, fertilise, spread, seed and top dress. And you can do them all with greater precision because of our unique ground speed governor control.

Pound for pound, function for function, nothing is as versatile or economical over more years of heavy use.

Now with Diesel engine option.

Now available with either petrol or economical diesel engine options, the Cushman Turf-Truckster is simply your best turf maintenance vehicle investment. Ask a Greenkeeper who owns one. Better yet, call the Cushman dealer nearest you for a free demonstration, or call 0473 270000 for more information today.
Rufford Top-Dress Supplies

Rufford Screened Soil-Sedge Peat

Unique quality guarantee and fast delivery nationwide

Grade A Amenity Mixtures provide the basic essentials for a greener Britain. High quality grass seed with good persistence, hard wearing resilience with good colour and, in many cases, considerably reduced maintenance costs.

24 different mixtures, selected to meet the most exacting professional standards, are available for the whole range of amenity uses.

Qualified technical advice on any aspect of amenity seed use is available from the acknowledged experts in the industry.
THE PUTTING GREEN

THE STIMPMEETER - A USER-FRIENDLY KEY TO BETTER GREENS

HIS is the fourth in a series of articles in which Harold Swash, Britain's Put-
ing 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 over 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 in-appropriate 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 Penncross).

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 'Augusta's "right arm". But Augusta's "right arm" is the Stimpmeter and it's lightning fast greens.

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 3: 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 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 . . . .

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 'guestimates' 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 is 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.

June 90

GREENKEEPING MANAGEMENT 45
New Pastures for the 1990's

The GMA Show
Britain's exciting new show organised by the trade for the trade

Open Times
Sunday 2 September
0930 - 1700
Monday 3 September
0930 - 1700
Tuesday 4 September
0930 - 1600

Discover an abundance of new ideas for the lawn, garden and outdoor power equipment industry.

Inspect and compare products from over 200 companies; and test the latest models to gain first hand experience.

Cut out and return to The GMA Show Ticket Office, 11 Manchester Square, London W1M 5AB.

Please send me further information and [ ] free tickets (state number).

Name

Company

Address

FREE TICKETS

Phone 0898 882895 or send off the coupon NOW. Entry without ticket £4.00 (incl. catalogue).
Open to trade buyers and professional users only.

The GMA Show
The International Professional Lawn, Garden and Outdoor Power Equipment Exhibition
2-4 September 1990
Kempton Park UK

Address
Postcode
RECRUITMENT

BURY ST. EDMUNDS GOLF CLUB

requires a

Head Greenkeeper

18 hole parkland course, further 9 holes opening Summer 1991.

Applications are invited from suitably qualified persons.

Two bedroomed bungalow available rent free.

Attractive salary package, good future prospects.

Applications in writing with C.V. to:
The Secretary
Bury St. Edmunds Golf Club
Tut Hill, Bury St. Edmunds
Suffolk IP28 6LG

Howley Hall Golf Club Ltd.

require a

Head Greenkeeper

Applicants should be suitably experienced in modern course management, and have the ability to motivate and lead staff.

Salary negotiable.

Accommodation available.

Please apply in writing with full c.v. to:
The Secretary/Manager
Howley Hall Golf Club Ltd.
Scotchman Lane, Morley,
Leeds. LS27 0NX

Estates Groundsmen (M/F)

2 Vacancies

The Guinness Estate offers one of the most interesting and varied opportunities for Groundsmen in the London area.

For our grass tennis courts, bowling greens, cricket and football pitches, we require your specialist skills in addition to your all round estates experience.

A mature outlook is essential. However, if you have a full driving licence and the ability to operate machinery you could become part of a small team enjoying flexible and varied work.

For travelling, we're situated right near Hanger Lane (Central Line) and Park Royal (Piccadilly Line) tube stations.

We can offer a wage of £223.96 pw (this includes overtime on a rota), 23 days holidays, generous profit share scheme, free lunches, contributory pension scheme and sports and social facilities.

For further information telephone Personnel Department, on 081 965 7700 ext 3523 or write to Robert Hutchinson for an application form,

Guinness Brewing G.B,
Park Royal Brewery,
London NW10 7RR.
LILLESHELL HALL GOLF CLUB

invite applications for the position of

HEAD GREENKEEPER

Applicants must be fully experienced in all aspects of greenkeeping and have a practical knowledge of modern machinery. The ability to lead and motivate staff is essential.

Club accommodation is not available, but housing in the adjacent new town of Telford is reasonably priced and plentiful.

Applications and C.V. to:

D. R. Higgs, Honorary Secretary,
Lilleshall Hall Golf Club, Lilleshall,
Newport, Shropshire, TF10 9AS

Macclesfield Golf Club

requiring a

Head Greenkeeper

The course is to be extended from 9 holes to 18 holes and applicants must be experienced in the construction of greens, tees, fairways, etc. working from information supplied by a well known golf course architect.

Salary negotiable.

Apply in writing with full CV to:

The Secretary
Macclesfield Golf Club
The Hollins, Macclesfield
Cheshire SK11 7EA

SURBITON GOLF CLUB

Seek an experienced and qualified

GREENKEEPER

For their friendly 18 hole wooded parkland course.

The course is in excellent condition and the successful applicant will be expected to play his full part in maintaining the high standard already achieved.

BIGGA rate of pay and other benefits including a comprehensive sickness and accident scheme.

40 hour week - Opportunity for Regular Overtime.

No accommodation.

Applications to:

The Secretary
Surbiton Golf Club
Woodstock Lane
Chessington
Surrey KT9 1UG
Tel: (081) 398 3101

CHATEAU des
VIGIERS

HEAD GREENKEEPER/COURSE MANAGER

An applicant is sought for this prestigious, new international 18 hole golf course, set amid the vineyards of the Chateau Vigiers.

Designed by Donald Steele
Built by Brian D. Pierson
Applications in writing to:

Mr. Lars Peterssen
Chateau des Vigiers, Monestier
24240 Sigoules, France
You are reading Greenkeeping Management

You have found the features informative, Product Focus useful, The Way Forward thoughtful, The Education Page invaluable and used the reader reply service.

So why don’t you subscribe?

Return the pre paid reply card or Telephone 091 496 0003 or Fax 091 496 0004

READER REPLY PRE-PAID CARD

Join over 5,000 subscribers who are bang up to date on greenkeeping throughout Europe. Improve your knowledge and subscribe to Greenkeeping Management today.

Please check the appropriate box

☐ I would like to be placed on your subscription list.

☐ Please find enclosed my cheque for £21.95 made payable to Greenkeeping Management.

☐ Please invoice me/my company.

Mr. □ Ms. □

Have you used the Reader Reply Service?

☐ To receive more information about the products and services advertised in this issue - place their reference flag number below.

How did you receive this issue of Greenkeeping Management?

☐ It is part of my BIGGA membership benefits.

☐ I am a subscriber.

☐ This issue was given to me by a member or subscriber.

☐ This issue was sent to me by post.

Signature __________________________ Date __________________________

REF - GM 6/90
TECHNICAL SALES REPRESENTATIVES and TRAINEE REPRESENTATIVE

Due to further expansion in both Scotland and North of England, we are seeking the above personnel to join our Company to promote our ranges of turf culture products.

IRRIGATION ENGINEER
GREENKEEPER/GROUNDSMAN

There are opportunities within our contracting company for additional staff on the above positions.

All applications will be treated in strict confidence.

Please write enclosing a detailed CV to:
Mr. A. H. Robinson
SPORTS TURF SERVICES
NEWBRIDGE MIDLOTHIAN EH28 8LE
FAX 0313335311 031-333-2345

HEAD GREENKEEPER

We require an experienced Head Greenkeeper for our busy 18 hole course.

Excellent salary.

Living Accommodation available.

Applications with C.V. to:-
The Secretary
Wyke Green Golf Club
Isleworth
Middlesex
TW7 5PT

Reigate Heath Golf Club

require a
First Assistant Greenkeeper
Salary according to experience and qualifications
Family accommodation available
write with C.V. to:
Secretary, Reigate Heath Golf Club,
Flanchford Road, Reigate,
Surrey, RH2 8QR

KIBWORTH GOLF CLUB requires an
ASSISTANT GREENKEEPER
For 18 hole parkland course.
Applicants should be experienced, preferably with qualifications.
Salary negotiable according to experience.
No accommodation available.
Please apply in writing with C.V. to:
The Secretary, Kibworth Golf Club,
Weir Road, Kibworth Beauchamp,
Leicester, LE8 0LP

Deputy Head Groundsman

With the World Cup nearly with us, the famous Wembley turf is due for a well earned rest. That's just the time however when our Groundsmen are hard at work keeping the pitch at peak condition for the rigours of the next season.

But as Deputy Head Groundsman at Wembley, that will only be one part (albeit the most important) of your duties. You'll also be working on the Greyhound Track and all the garden and grassed areas within the complex.

You'll need to have a minimum of 5 years experience, ideally be professionally qualified, and possess supervisory experience to co-ordinate our team of high quality groundsmen. You must also be prepared to work long hours especially in the spring and summer. In return we can offer an excellent salary and benefits package including Executive Share Option, profit share and sickness and pension schemes as well as the opportunity to work on perhaps the most famous turf in the country.

To apply, please write to Graham Josephs with details of your career to date and your current salary at: Wembley Stadium Ltd, Wembley HA9 0DW or phone for an application form on 081 902 8833.
Recruitment

EUROPEAN GOLF AND LEISURE PLC
Proprietors of Golf Chateau de Preisch
A Licenced European Tour Course. Require a COURSE MANAGER/HEAD GREENKEEPER

To be appointed immediately to assist in the supervision and growing in of a new 27 hole Golf Complex designed by Tour Developments, a member of the PGA European Tour Group of Companies. The two courses will be built to the highest standards with the intention of a new 27 hole Golf Complex designed by Tour Developments, a member of the PGA European Tour Group of Companies.

A Licenced European Tour Course. Require a

This executive position is for a person of proven ability with qualifications and experience in man management, course management and machinery maintenance. A compliment of 10 greenkeepers is envisaged.

The two courses will be built to the highest standards with the intention to host Tour sanctioned events in the future. This executive position is for a person of proven ability with qualifications and experience in man management, course management and machinery maintenance. A compliment of 10 greenkeepers is envisaged.

A substantial salary is negotiable and a relocation package will be provided. Accommodation will be available. Applicants should submit c.v. to:

David Stanley, SA du Golf du Domaine de Preisch 8 rue des Lilas, Basse-Rentgen, 57570, France.

Tel: (33) 82 83 45 72. Fax: (33) 82 83 46 91

All replies will be treated in confidence.
 Vertidrain and Hollow Coring Hire

All types of reconditioned turf machinery supplied.

R. J. & J. CAMPEY
The Dairy, Marton Hall Lane, Marton, Macclesfield.
Tel. 0290 224568
0860 451011

Vertidrain and Hollow Coring Hire

All types of reconditioned turf machinery supplied.

E & S SPORTSGROUND CONTRACTORS
39 Knox Green Binfield, Bracknell, Berks RG12 5NZ
Telephone: 0344 860690
Contact Richard Veitch

WORTH DRAINAGE

VERTIDRAIN HIRE
Contact Peter Bloodworth
WORTH DRAINING
Cornbecks Farm
Irham, Grantham,
Lincolnshire 0476 84266

IRIGATION

Water Quality Control
pH and chlorine control and dosing systems for your irrigation water, for improved turf quality. Nationwide installation and commissioning service, and advice.

Contact Brian Sykes
STANCO PROCESS LTD
Commercial Road, Eastbourne, East Sussex. Tel: (0323) 641633

BRITISH OVERHEAD IRRIGATION LTD.
• Manufacture Equipment •
• Design and Install Systems •
The Green, Upper Halfield, Sheperton, Middlesex TW17 9RY
Tel: (0332) 780301. Fax: (0332) 780437

Golf Build (UK) Ltd
GOLF COURSE AND DRIVING RANGE CONSTRUCTION
Sedlescombe, East Sussex
TN33 6SD
Tel: (0424) 670868
Fax: (0424) 670855

DERWENTWELL AGGREGATES
DERWENT HOUSE, 84 COLLEGE STREET, LONG EATON, NOTTINGHAM NG10 4NP
Supplies of special sands, gravel and stone, various grades of bunker sand.

* WHITE BUNKER SAND
(AS USED AT THE BELFRY)
Drainage Gravel
Sharp Sand for top dressing
Attractive Road Stone for paths and drives.

For prompt and efficient service
TEL: (0602) 461001
FAX: (0602) 461576

Civic Contract Services
Low ground pressure equipment used for all your on course construction and drainage needs with minimum disruption to play.

Progress Cottage
Buxton Road
Bakewell DE4 1DA
Tel 01629 814269
Mobile 0831 440131

T. & G. TURF IRRIGATION SERVICES
8 Whitchiffe Grove, Ripon, North Yorkshire HG4 2JW
Tel: (0765) 2941 (0423) 864963
Full member of B.T.I.A.

FLANDEBLADE LTD.
Specialists in golf course irrigation
20 Whistlearea, Littlehampton, West Sussex BN17 2JA
Tel: (0903) 724545
Full member of B.T.I.A.

AERATION & DRAINAGE SERVICES
Construction, alteration and drainage - all areas
Contact: Paul Wright
Aeration & Drainage Services
20 Westminister Close, Eastbourne, Sussex BN22 0LQ
Tel: (0230) 508725
Mobile: (0860) 836241

SAND/SILICA SAND
The leading supplier of Moneystone Bunker Sand
In Clifton Street, Alderley Edge, Cheshire
Tel: Alderley Edge (0625) 584571/
585143. Fax: (0625) 586130.

Golf Build (UK) Ltd
GOLF COURSE AND DRIVING RANGE CONSTRUCTION
Sedlescombe, East Sussex
TN33 6SD
Tel: (0424) 670868
Fax: (0424) 670855

DERWENTWELL AGGREGATES
DERWENT HOUSE, 84 COLLEGE STREET, LONG EATON, NOTTINGHAM NG10 4NP
Supplies of special sands, gravel and stone, various grades of bunker sand.

* WHITE BUNKER SAND
(AS USED AT THE BELFRY)
Drainage Gravel
Sharp Sand for top dressing
Attractive Road Stone for paths and drives.

For prompt and efficient service
TEL: (0602) 461001
FAX: (0602) 461576

BUCkLAND Sand & Silica Company
COMPLETE RANGE OF HORTICULTURAL SANDS
Contact: Bryan Jarvis
Buckland Sand & Silica Co
Reigate Heath, Reigate, Surrey RH2 9RG
Tel: (0737) 240151

WETERN BROTHERS LTD
RMC HOUSE - CANNING ST. MAIDSTONE - KENT ME14 2RX
Telephone (0622) 782361
Contact: Chris Perkins

GEORGE GARSIDE (SAND) LTD
QEC Quarries
Complete range of dried graded silica sands for all purposes
Contact John Deavan at 39 Hockcliffe St., Leighlin Bazaar, Bedfordshire LU7 8HB. Tel: (0525) 372281, Fax. (0525) 851572, Telex. 825868

F. J. CROW LTD
Specialists in all types of sands and gravels - contact
Dick Gunn at
Paddan House, 12a, Stortford Road
Great Dunmow, Essex, CM6 1DA
Tel: 0371 875577

TACIT
The best for less in Golf Course Equipment
48 Hillmorton Road
Rugby CV22 5AD
Tel. (0786) 68018

M & B SUPPLIES
Moneystone Bunker Sand
available in loose bulk loads to
CONTACT JIM BURROWS AT 15 UTTERTON ROAD BURNENNN, STAFFS ST10 4LG
Tel. 0538 722417 Fax. 0538 723387

BUCKETLAND Sand & Silica Company
COMPLETE RANGE OF HORTICULTURAL SANDS
Contact: Bryan Jarvis
Buckland Sand & Silica Co
Reigate Heath, Reigate, Surrey RH2 9RG
Tel: (0737) 240151

WETERN BROTHERS LTD
RMC HOUSE - CANNING ST. MAIDSTONE - KENT ME14 2RX
Telephone (0622) 782361
Contact: Chris Perkins

GEORGE GARSIDE (SAND) LTD
QEC Quarries
Complete range of dried graded silica sands for all purposes
Contact John Deavan at 39 Hockcliffe St., Leighlin Bazaar, Bedfordshire LU7 8HB. Tel: (0525) 372281, Fax. (0525) 851572, Telex. 825868

F. J. CROW LTD
Specialists in all types of sands and gravels - contact
Dick Gunn at
Paddan House, 12a, Stortford Road
Great Dunmow, Essex, CM6 1DA
Tel: 0371 875577

WETERN BROTHERS LTD
RMC HOUSE - CANNING ST. MAIDSTONE - KENT ME14 2RX
Telephone (0622) 782361
Contact: Chris Perkins

GEORGE GARSIDE (SAND) LTD
QEC Quarries
Complete range of dried graded silica sands for all purposes
Contact John Deavan at 39 Hockcliffe St., Leighlin Bazaar, Bedfordshire LU7 8HB. Tel: (0525) 372281, Fax. (0525) 851572, Telex. 825868

F. J. CROW LTD
Specialists in all types of sands and gravels - contact
Dick Gunn at
Paddan House, 12a, Stortford Road
Great Dunmow, Essex, CM6 1DA
Tel: 0371 875577

TACIT
The best for less in Golf Course Equipment
48 Hillmorton Road
Rugby CV22 5AD
Tel. (0786) 68018

COURSE ACCESSORIES

TACIT
The best for less in Golf Course Equipment
48 Hillmorton Road
Rugby CV22 5AD
Tel. (0786) 68018

PUMPS

GRUNDFOS PUMPS
FOR SPORTS & RECREATIONAL TURF IRRIGATION, BOOSTING AND WATER SUPPLY
Contact our sales offices today for full information on the Grundfos range
SOUTH: (0207) 875577
NORTH: (0925) 813300

GRUNDFOS GRUNDFOS PUMPS LTD DERWENTHORPE ROAD, LEIGHTON BUZZARD, BEDS LU7 9SY

TRENCHERS

CASE TRENCHERS
TRENCHEX PLANT SALES
Dove Fields, Ultoxeter, Staffs.
Fax: (0889) 565140.
Tel. (0889) 565155

GREENKEEPING MANAGEMENT 51
TURF DRESSINGS

BOUGHTON LOAM LTD.
Producers and Suppliers of the "Top of the Table" Range of Turf Dressings
Bunker Sands, Screened Loam & Topsoils, Horticultural Composts.
Telford Way, Telford Way Industrial Estate, Kettering, Northants. Tel: 0556 510515

MACHINERY HIRE

WORTH CONTRACTORS LTD
Trencher hire: self propelled low ground pressure machine
Trenches up to 1 metre deep and 3 to 8 inches wide. Can be increased to 1.2 metres deep by 400 mm wide. Oxford wheel attachment which is 50 mm wide by 400 mm deep. Ideal for Sportsground Drainage, Sand Slitting and Cable Laying, etc. - Please contact:
Worth Contractors Ltd., Tring House, High Street, Cranleigh, Surrey, GU6 8RL. Tel: (0483) 274800.

FOR HIRE
VERTI-DRAIN AND AUTO SEEDER FOR HIRE.
CRICKET • GOLF GREENS • RUGBY • OR FOOTBALL PITCH
QUOTES GIVEN
TRACTOR/DRIVER AND VERTI-DRAIN ALL INCLUDED
RING NOW FOR BOOKINGS TEL: (0873) 880244. FAX: 02913 2676

KEITH MORGAN MOWERS
Any distance covered
COURT WYNDERNERE, BETTINS NEWWOOD UK, Gwent NP6 1TJ
TELEPHONE 0873 880244.
ALSO MAIN AGENT FOR JACOBSEN, AGRIA, CHARTERHOUSE AND VERTI-DRAIN

ENGLISH WOODLANDS LTD
VERTI-DRAINAGE
For Golf Courses and other grassed sports areas throughout Kent.
Tel: S. McFarlane
Grounds Maintenance Manager
Tel: (0227) 710694

IN MAY 1990
5324
subscribed copies of Greenkeeping Management were sent out amongst a total distribution approaching 9000*.
So if your company sells machinery...or your firm provides a unique service within this industry...you should be talking to us about how best to promote your business and maximise profit by using 'Europe's most widely circulated greenkeeping magazine'.
Simply call Bill Lynch on 091 496 0003 or Fax him on 091 496 0004

THE WORLD'S LEADING GOLF COURSE EQUIPMENT DESIGN AND MANUFACTURER
Specialist items include: Furniture, Greenkeeping and Groundsman's Tools, Tee Plates of all shapes and sizes, Club House and Special Event Flags, Hole Cups for every type of course, Flag Staffs to fit every need. And for the Driving Range too, a most efficient Ball Collector, Big Capacity Ball Dispensers, Economic Ball Washer, Hard Wearing Tee Mats and Rubber Tees.
H. Pattisson and Co. Ltd, 342 Selbourne Road, Luton, Beds. LU4 8NU
Phone 0582 597262. Fax: 0582 505241

GOLF COURSE EQUIPMENT
We have selected only quality products for the BIGGA range because we want you to be entirely satisfied with what you buy. If for any reason you are not, return the unused item to us within 30 days of receipt and we will either supply a replacement or refund your money. This guarantee is in addition to your statutory rights.

**THE CLYDE — Sleeveless**

Sizes: 36"-50" ($1.00 surcharge on 50")
Colors: Navy, Black, Hortensia, Claret, Royal, Red, Sea Turquoise, White, Blue Mist, University Green, Azure Blue, Buttermilk
$23.95 each Order No: GM002

**THE MOFFAT — Short Sleeved Shirt**
The Glenmuir sports shirt, designed in Scotland, is available in a range of colours and can be worn with or without a tie. It is manufactured from 60% cotton/40% polyester.
Sizes: 36"-XXL (36"-50")
Colors: Light Yellow, White, Burgundy, Jade, Pale Blue, Navy, Black, Stone, Peach, Candy, Ferrari Red, Bermuda Blue, Peppermint, Sky Blue, Oxford Grey, Ascot Blue
$13.50 each Order No: GM004

**THE MULL — Short Sleeved Shirt**
The Glenmuir sports shirt, designed in Scotland, is available in a range of colours and can be worn with or without a tie. It is manufactured from 60% cotton/40% polyester.
Sizes: 36"-XXL (36"-50")
Colors: Navy, Pansy, Black, Hortensia, Claret, Oxford Grey, Royal, Red, Light Grey, Sea Turquoise, Pink, White, Blue Mist, Natural, Bottle, Mikado, Toffee, University Green, Azure Blue, Buttermilk
$25.95 each Order No: GM001

**THE FORTH — V-Neck**

Sizes: 36"-50" ($1.00 surcharge on 50")
Colors: Navy, Pansy, Black, Hortensia, Claret, Oxford Grey, Royal, Red, Light Grey, Sea Turquoise, Pink, White, Blue Mist, Natural, Bottle, Mikado, Toffee, University Green, Azure Blue, Buttermilk
$25.95 each Order No: GM001

**THE SPEY — Cardigan**

Sizes: 36"-50" ($1.00 surcharge on 50")
Colors: Navy, Pansy, Black, Hortensia, Oxford Grey, Red, Sea Turquoise, University Green, Azure Blue
$31.95 each Order No: GM003

**TIES**

- Official BIGGA ties available in five designs, custom made from 100% polyester with embroidered logo.

$4.00 each
Order Nos: (from left to right) B100, B101, B102, B103, B104

- All prices shown include VAT.

Guarantee
We have selected only quality products for the BIGGA range because we want you to be entirely satisfied with what you buy. If for any reason you are not, return the unused item to us within 30 days of receipt and we will either supply a replacement or refund your money. This guarantee is in addition to your statutory rights.

**ORDER FORM**

Send your order (no stamp needed) to:
BIGGA OFFERS, FREEPOST, FARSLEY, PUDSEY, W. YORKSHIRE LS28 5YG

Name
Address
Town County Postcode
Tel
Date
Signature

NOTE: A VAT invoice will be sent with every order

---

<table>
<thead>
<tr>
<th>CATALOGUE No.</th>
<th>PRODUCT DESCRIPTION</th>
<th>Colour</th>
<th>Size</th>
<th>Qty</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I wish to pay by Cash/Cheque/Postal Order/Credit card. I authorise you to debit my Credit Card account with the amount of £

Cheques should be made payable to Direct Marketing Ltd.

---

**IF YOU ARE AN ACCESS OR BARCLAYCARD HOLDER, USE OUR 24-HOUR FASTPHONE RING 0532 560046**
Sun shines on delegates at Egham

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.

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 American speaker Jim Latham.

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

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.
Eagles you have seen. Even the odd albatross. But a Jumbo – never.

The point is, a Techturf grass surface could comfortably withstand the impact of landing Boeing 747's without sustaining any real damage. Because the Techturf System brings together advanced technology and nature it has an unparalleled ability to stay flat, dry and healthy.

The massive root structure is augmented by a random matrix of unique micro-grids which ensure that any damage inflicted will heal rapidly and completely. So the next time an enthusiastic beginner attempts to etch his handicap in lifted divots it is reassuring for the greenkeeper (and every club member) to know that he is battling with the toughest growing surface that money can buy.

If you would like to know more about how you can keep the grass growing under your feet, return the coupon and we will send you the full facts about Techturf.

SEND FOR FULL DETAILS TO:
BritAg Industries Ltd, Waterfront House Skeldergate Bridge, York YO1 1DR

NAME
ADDRESS
CODE
TEL No.

ICI Advanced Turf Systems
Zennapron
the power from BP
that puts you
in control

It's the special BP oil content that makes the difference. The BP oil aids adhesion and spread with large easily visible droplets that minimise drift and penetrate the weed’s defences faster. But there are other excellent reasons for selecting Zennapron. It's ideal for established turfed areas – golf courses, sports grounds, playing fields and amenity areas, suitable for application from April until September, and it's conveniently ready to spray.

When used with any CDA sprayer it also offers you the cost-effective benefits of simple calibration and high work rate for selective weed control on turf. And, of course, there's no messy mixing or measuring and no operator contact with the herbicide. No wonder Zennapron is the perennial solution for annual weed problems.

THE OPTIMUM TIME TO USE ZENNAPRON

<table>
<thead>
<tr>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
</table>

Zennapron contains 2,4-D iso octyl ester 6.7% w/w acid equivalent, CMPP iso octyl ester 13.4% w/w acid equivalent.

Read the label before you buy – use pesticides safely.

Growing... Going... Gone... with Zennapron

The Power to Control

For further information on Zennapron and other BP herbicides contact BP Agro Chemicals Unit. Tel. (0442) 225348 or tick the reader reply box.