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PICTURE SPECIAL ON BIGGA AT THE OPEN: PAGES 18, 19

Journal of the British and International Golf Greenkeepers Association



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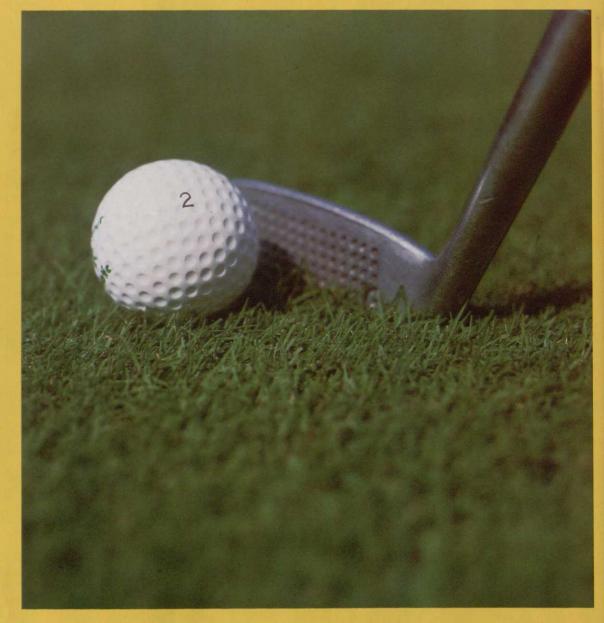
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AUGUST 1993



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COVER PICTURE:

Sand Moor Golf Club, a picturesque venue for the Hayter Challenge Tournament Final next month

Greenkeeper Education and Development Fund

the Fund provides the key to the future for greenkeeper, golf club and game. Individuals and companies can join the Golden Key Circle and Silver Key Circle. For details, contact BIGGA on 03473 581.

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Approved or not approved? The pesticides registration muddle

by JON ALLBUTT

Agronomists, advisers, employers and users beware, the product you are recommending or proposing to use may not be approved any more.

Some of our favourite products may not be around much longer. A combination of the MAFF review process and in-house reviews of commercial viability by the approval holders is resulting in many products being discontinued. Inevitably there will be misguided reporting of this in the media, which does not help to clarify what is a very confusing situation.

The Advisory Committee on Pesticides has the power to recommend to Ministers that products be withdrawn (have their approvals revoked) on safety grounds. The registration process also requires regular updating of data packages, labels, container design etc. The cost of all this to the approval holder is sometimes prohibitive and the decision may be to discontinue the product, as sales do not support any further work.

To report all this in terms of 'another product banned' is irresponsible and only serves to further confuse. The most recent edition of the official listing of approvals and withdrawals – 'The Pesticide Register' – is written for those who already understand 'the system' and can read the formal technical language. The fact that a popular product appears in the list of withdrawals might only mean that the approval holder is disposing of an old approval, having previously improved the product by a minor formulation change – which requires registration and thus another approval number. Confused? – you will be! The Pesticides Register is not the best place to look unless you are an expert.

If you are giving advice on the use of pesticides you should hold a BASIS Certificate and be on the BASIS Professional Register. This requires that you agree to undertake annual Continuous Professional Development in order to maintain your registration. Those seeking advice which will include the use of pesticides should make sure the advisor is up to date and is on the BASIS Professional Register.

When it comes to reviewing your use of pesticides under the COSHH Regulations and you are updating your inventory, consult your supplies representative, distributor or manufacturer in order to establish that the product approval is on-going.

I am constantly hearing comments from greenkeepers that such and such a product has been banned, hasn't it? A case of the grapevine not working well for once!

■ The author and consultant advisor, Jon Allbutt, is a member of the Register of Practitioners for Pesticide Advice under categories that include Amenity Horticulture, Forestry and Aquatic.



■ Derek Keen, twelve years with The Whitbread Group (which incorporates Country Club Hotels), has taken management responsibility for all 14 UK courses in the group, as well as a golf complex outside Hamburg. Derek began his career as an apprentice greenkeeper in 1963, and worked within CCH

as course manager at both Tudor Park Hotel G&CC and Telford Hotel G&CC before moving into regional management in 1989.

■ Raymond Hunt, formerly course manager at Goodwood Park Hotel G&CC, West Sussex, has also been promoted by Country Club Hotels and is now course manager at the Forest of Arden Hotel G&CC, Warwickshire, site of the Murphy's English Open for 1993.



■ Is Steve Welch the fittest greenkeeper in the land? Few would argue after Taunton Vale's 36 year old head greenkeeper finished 28th in the World Trail Running Championships, held in June over a gruelling crosscountry course of 80 miles which included a total of 9,000 feet of climbing! Steve, whose

time of 13.5 hours enabled him to raise healthy sums for local charities, says "being fit has its benefits on the course. It's often much quicker to run and sort out a problem than to take a vehicle."



■ One of a galaxy of highly skillful Scottish golfing greenkeepers and a regular contender for top honours in national and regional golfing events, Kevin Peace is about to show the members of Inverurie Golf Club that he is just as proficient on the golf course without a golf club in his hands. Latterly first assistant to

Hugh McLatchie at Peterhead, Kevin is making his move into golf course management for the very first time. We join with his many colleagues in Scotland in wishing him every success.



■ Dr Neil Baldwin, until recently the STRI's plant pathologist, has become technical manager responsible for amenity products at Service Chemicals plc, Daventry. A regular 'face' on the greenkeeping lecture circuit, Neil is perhaps best known to greenkeepers for his research into dry patch problems. His primary

role at Service Chemicals will be concerned with the research and development of new products, together with technical support programmes for the company's existing range, which includes Turfex, Go Green and Spraywet. In addition, Neil also intends to develop an advisory/consultancy service to the turfgrass industry as well as appearing on the lecture platform and writing technical articles for Greenkeeper International.

■ PSD Agronomy and Professional Sportsturf Design (NW) Ltd have moved to 42 Garstang Road, Preston, PRI INA., though they keep their existing telephone numbers. Consultants David Stansfield, Mike Harbridge and John Hacker can be contacted on 0772-884450 or fax 0772-884445.

■ Yorkshire turf specialists Rolawn announce that it has begun cultivation of a new turf for golf greens. As yet unnamed, it is expected to create major inroads in the market for superior golf greens turf and is expected to be available next spring.

"We have carried out an intensive research project into the best methods and materials available for cultivating the finest greens turf," said Terry Ryan, Rolawn sales and marketing manager. "Today's discerning golfer expects to play on only the very best playing surface and to cater for this

Faces and places

demand we have recently sown specially bred cultivars which have been acknowledged as among the highest rated varieties by a number of the world's leading turf specialists,"

■ The IoG exhibition, embattled following the withdrawal of several machinery firms from this year's event at Peterborough, is to return to Windsor Racecourse in 1994, a site that is claimed to now offer better parking facilities and an extended exhibition area. In addition, a new slip road should help to eliminate problems previously encountered when entering and leaving the racecourse.

The 1994 show is to be retitled and remodelled to a formula that will be revealed in September.

■ Kenny Hunter, well known to Scottish greenkeepers, has been appointed as Huxleys Grass Machinery area manager for the West of Scotland. Kenny, who lives in Milngavie, studied Greenkeeping and Mechanical Engineering at Woodburnhouse College, was a greenkeeper at Campsie GC and Dougalston GC, and worked for Frews for nine years as area sales manager selling Ransomes, Cushman and other commercial grass machinery.

Huxleys' branch at Broxburn, near Edinburgh, provides full sales, hire and service support for their range of golf course machinery. Details. Tel: 0962 733222.

■ Netlon Limited have announced Exeter-based City Gardens and its sister business City Sports as agents and installers for the Netlon Advanced Turf System in South West England.

City Gardens has a well established reputation for high quality works, and proprietor, Bob Hunt, says: "I believe that the Netlon system represents the most significant advance in turf culture to date. It has enormous potential, both for sports and for amenity surfaces such as fire access roads and car parks." For more information on the Netlon Advanced Turf System, or a copy of their new video, call Netlon (free) on 0800 585012.

■ The Toro Commercial Products Division of Lely (UK) Ltd have announced a major programme of nationwide 'Workman Field Days' where the much acclaimed Workman 3000 turf maintenance vehicle will be both demonstrated and available for test driving, using a wide range of popular attachments. The 'Workman Field Days' will run throughout September and October. Details from Toro commercial dealers or tel: 0480 476971.

■ Three greenkeepers from the UK were guests of Barenbrug on a three day, all expenses trip to Holland. Robert Nelson from Lisburn GC, Ian Morrison from Bramall Park GC and Neil Maltby from Wheatley GC were winners of Barenbrug's See, Buy & Fly competition, staged at BTME '93 in January. Accompanied by marketing director Michel Mulder, they had been invited to play in the annual Barenbrug Golf Trophy held at Nunspeet. The course, naturally enough seeded with Barenbrug varieties, is relatively new but still impressed the UK visitors. "It's a difficult course but is already playing well," said Ian Morrison, "and the excellent facilities are second to none."

On their last day Michel Mulder took them around Barenbrug's breeding station, where many of the next decade's varieties are under development. The complexity and size of the installation came as a surprise to all, proving conclusively that not all seeds are equal. "I knew Barenbrug operated internationally," commented Neil Maltby, "but until today I don't think any of us appreciated just how big it really is. We've seen one warehouse, for instance, large enough to hold four football grounds full of product for all around the world."

■ Supreme Mowing have teamed up with Jim Paton, BIGGA's Ayrshire section secretary, to present a seminar on the maintenance of the cutting cylinder and bottom blade. Two courses, one for both morning and afternoon, will be held at the Irvine Bogside Golf Club on 14 September. Main emphasis will be on sharpening cylinders inside or out of frame, showing the advantages of spin and relief grinding an area often seriously neglected. All BIGGA members are welcome to attend - contact Linda Adams at Supreme Mowing on 0709 873436 for more details.



believe, but Norman Fergusson, the stalwart links super intendent of Royal Troon, has been with the club for fifty years. What's more, his father was there before him for what seemed like an eternity. Now and Greenkeeper International is proud to acknowledge the fine service he has given to greenkeeping. including masterminding the cours for a clutch of memorable Open Championships - we wish him peace, contentment.



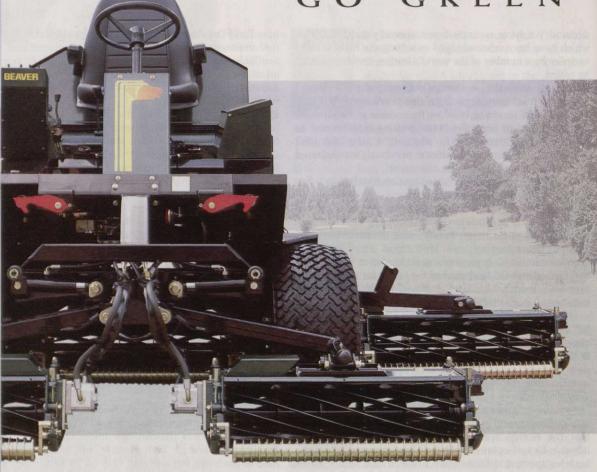
Ransomes recently played host to a group of Scottish greenkeepers who visited the Ipswich manufacturing plant to see how machines used on their courses are assembled. They also took the opportunity to view a demonstration of newly launched machinery, including the Fairway 300, at a local golf course.

Said one happy visitor, "This trip was invaluable, the majority of us are users of Ransomes' machinery and having now seen the manufacturing process, we can appreciate how well the machinery is made. We also enjoyed 'handson' experience with some exciting new Ransomes machines".



International has learned that Tim Colclough, STRI advisor in the south west of England, is leaving the Institute this month to take a full-time one year teacher training course at Leeds University. We wish him well.

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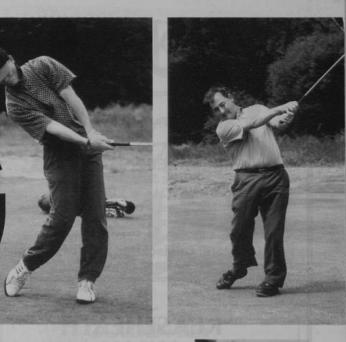


HAYTER

Hayters PLC, Spellbrook, Bishop's Stortford, Herts. CM23 4BU. Telephone: (0279) 723444.

SWIN (

Pictures from the Scottish Region Greenkeepers Golf Championships 1993 For report, see 'Around the Green' pages





RESULTS

The Scottish Champion – SGGA Challenge Cup – Paul Murphy (Caird Park) 78 (Scratch)

Best Nett – The Friendship Trophy – Drew McKechnie (Douglas Park) 85-14=71

Best Head Greenkeeper – The BIGGA Challenge Bowl – Gordon Heron (Brunston Castle) 90-18=72 Best Assistant – The M&M Trophy – Jim Wilson (Torrance House) 82-9=71

Best Apprentice – The Souter Trophy – William McMeikan (Turnberry) 83-9=74

Best Veteran – The SIGGA Trophy – George Brown (Turnberry) 80-5=75

The Section Team Trophy – West Section

Trade Prize – Alan Stevenston (Souters) 84-10=74 1st Class 1st – The Ransomes Trophy – Alistair Connell (Cawder) 79-6=73 (BIH)

1st Class 2nd – Ian McNab (Dumfries and County) 78-4=74

1st Class 3rd – Charles Goodall (Balmore) 78-3=75 2nd Class 1st – The Pattisson Trophy – Gavin Millar

(Cardross) 83-11=72 (BIH) 2nd Class 2nd – Ian Wilson (Blairbeth) 88-15=73. 2nd Class 3rd – John Young (Douglaston)

91-15=76 **3rd Class 1st** – The STRI Trophy – Colin Scott (Killermont) 102-20=82

3rd Class 2nd – John Robertson (Peebles) 102-19=83

3rd Class 3rd – Andrew McDowell (Torrance House) 104-20=84 (BIH)







PICTURES, clockwise from top: Paul Murphy, George Brown, Drew McKechnie, Gavin Millar, William McMeikan, the finalists, and Scottish Champion Paul Murphy collecting his trophy from BIGGA Chairman, John Crawford

PHOTOS: DAVID WHITE



Colleges



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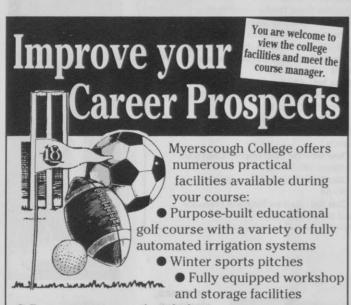
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Financial services to members

Members are advised that Howard Evans is no longer acting as a representative for Standard Life and has resigned as pensions adviser to BIGGA.

The requirements of members have been assessed and in view of the increased demand for advice over a wide range of financial matters it has been decided that a network of regional brokers would be able to respond quicker and better to members requests. The brokers appointed will be FIMBRA members and as such will be in a position to offer independent advice over a wide range of financial services, having access

to all the major life insurance and pension companies including Standard Life which continues to be regarded as one of the better institutions.

Peter Hoare & Co Ltd has been selected to act as the main broker and being based in Sheffield is within easy access of Aldwark Manor. Other brokers are in the process of being appointed and full details will appear in the September issue of Greenkeeper International.

In the meanwhile members requiring further information or advice should contact either Neil Thomas or John Pemberton at BIGGA HO on 0347 838581.

RECOMMENDED MINIMUM SALARY/WAGES SCALE

These are the Association's recommended minimum salary/wages scale for 1993, although actual figures remain the subject of negotiation between the Golf Club and Greenkeeping staff.

	18 Holes	27 Holes	36 Holes
Course Manager/ Head Greenkeeper	£18,230 pa	£19,880pa	£22,250pa
Deputy Course Manager/ Deputy Head Greenkeeper	£13,160pa	£14,340pa	£16,040pa
First Assistant	£219.00pw	£219.00pw	£219.00pw
Assistant Greenkeeper	£206.00pw	£206.00pw	£206.00pw
Apprentice Greenkeeper:	Age 16/17 Age 18 Age 19 Age 20 Age 21+	£103.00pw £128.75pw £154.50pw £180.25pw £206.00pw	

NB: Where appropriate these rates should be increased to reflect Regional variations up to a maximum of 24% in the South East Region.

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 appropriate Deputy Course Manager/Deputy Head Greenkeeper salary scale should apply.

NB: Staff is possession of recognised qualifications should have this reflected in an addition to basic salary.

Basic conditions of employment should include:

- Where accommodation is provided by the Club, it should be rent free with heating/lighting costs borne by the Club. The Club should compensate for Council Tax Liability.
- 2. Where accommodation is not provided by the Club, a suitable remuneration in addition to the above salary should be paid.
- 3. 40 hour week.
- 4. Retirement Pension Scheme.
- 5. Telephone costs on Club business.
- 6. Mileage allowance.
- Time off to attend lectures, demonstrations, BIGGA functions and tournaments.
- 8. If not salaried, basic overtime to be paid at time and a half, with double time on Sundays and Statutory Holidays.

Membership details are available from the Executive Director, BIGGA, Aldwark Manor, Aldwark, Alne, York, North Yorkshire Y06 2NF. Telephone: 0347 838581, fax: 0347 838864.

Head Office

Golden Key membership for Farmura and Milliken

With work on the new Training Video "Setting the Standard – in Spray Application" nearly complete, BIGGA is delighted to welcome both Farmura and Milliken as Golden Key members following their support for the new video.

"It's great news for the Education and Development Fund that Farmura and Milliken have become Golden Key members," said Executive Director, Neil Thomas. "They have been two of the major sponsors of the new video which has been warmly welcomed both by BIGGA members and within the industry."

Jonathan Harmer, Managing Director of Farmura commented: "We are pleased to be part of the first BIGGA Training Video which emphasises quality and professionalism. It will, I hope, be of value not only to greenkeepers but also to Green Committees and club members in helping their understanding of the variety of skills required to produce top class results."

Commenting on the launch of the video a spokesman for Greenlink Products, the national distributor for Blazon, the spray pattern indicator featured throughout the film, said: "The support provided by Milliken Chemical, a BIGGA Golden Key member and manufacturer of Blazon, has been tremendous. Their sponsorship of this video emphasises how much importance they place on greenkeeper education and training. This video will prove to be an excellent vehicle for improving greenkeeping practices and will show to all who watch it how much care, attention and skill is given to the management of golf courses and their surrounding environment.

Education and training update

- The Toro/PGA Student Greenkeeper of the Year Award Regional Finals are being scheduled to take place at college centres at the beginning of September. The National Final will take place at Aldwark Manor on 11–12 October.
- Nominations for the ICI premier Greenkeeper Award were due into headquarters by 31 July. Each section nomination will be visisted by a BIGGA Educational Convenor and an ICI representative. Subsequently there will be a further course assessment for each of the Regional finalists followed by the National Final at Aldwark Manor on 6–7 December.
- Very few places remain on the Pesticide Course at Aldwark Manor for the week commencing
 September. If you wish to

obtain your PA1 and PA2A book now – to date there has been a 100% pass rate.

 The fifth year of Management Courses are now being booked.
 Early bookings are advised and don't forget the dates:

Year One courses – 18–22 and 25–29 October; Year Two – 1–5 November; Year Three – 8–12 November and Year Four – 15–19

To reserve your place, complete the postcard in this magazine and return to BIGGA together with a deposit of £100 plus VAT (total: £117.50). The balance will be due for payment no later than 1 October 1993. If you have any queries or need more information, call Debbie Savage on 0347 838581.

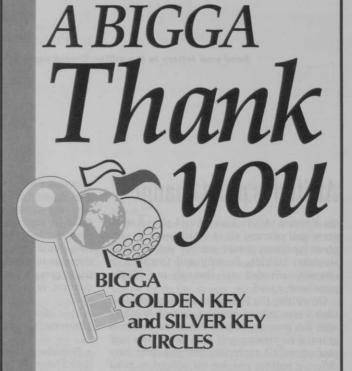
Sam Hagen

It is with great sadness that we inform members of the sudden death of Sam Hagen, Course Manager at The Vale Golf and Country Club, near Pershore and formerly Head Greenkeeper at The Belfry.

Richard Harrison, the general manager at Aldwark Golf Hotel, employed Sam at The Vale: "Having worked within the leisure industry for over 20 years, I believe Sam exemplified why greenkeepers get up every morning rain, snow or sun to tend their golf courses. He loved his work and was excited by each new project."

It was typical of Sam to be the first Greenkeeper to achieve the new qualification for assessing National Vocational Qualifications.

Sam was only 35 years old and leaves behind a wife and three children to whom we send our sincere condolences.



...to the following companies, in recognition of their continued support for the Greenkeeper Education and Development Fund



Professional Products

The Toro Company International Division Irrigation

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Lely (UK) Ltd. UK distributor for Toro Commercial Products



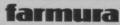








HAYTER







Together, we're building a great future for golf club, greenkeeper and game

For details of how you can support the Education and Development Fund, Contact BIGGA at Aldwark Manor, Aldwark, Alne, York Y06 2NF.
Telephone: 0347 838581 Fax: 0347 838864



Send your letters to the editor, Greenkeeper International, 13 Firle Close, Seaford, East Sussex BN25 2HL

Attitudes must change

On a recent visit to Lancashire I played some great golf courses, all of which were in very good condition. I was warmly welcomed at Hoylake, Hillside, Formby and Ormskirk, a courtesy afforded me through my BIGGA membership card.

On visiting the Southport and Ainsdale Golf Club I was refused courtesy, but on speaking with the secretary I learned that this facility is granted to visiting golf club secretaries and professionals. I appreciate that golf clubs have differing policies and are not obliged to grant courtesy, but surely if a club adopts such a policy how then can it discriminate between the three associations.

Whilst I accept their decision, I am unable to comprehend their reasons. Much knowledge can be gained by playing other courses and talking with the green staff, particularly when visiting outside of one's immediate area. This practice is of course one that is adopted by many club secretaries in order that they may enhance their own knowledge and experience. The impression I gained was that greenkeepers, in the eyes of some club administrators, are still regarded as second class citizens.

One can only hope, as time goes by, that the draconian attitudes still prevalent in some clubs will eventually change and that all personnel involved in the successful organisation of a golf club will be respected and treated equally.

BRIAN K TURNER

Head Greenkeeper, Worplesdon Golf Club, Woking, Surrey

BIGGA in Europe

As course manager of the Vereniging Golfclub in the Netherlands I was pleased to learn in Neil Thomas's AGM report of the interest shown in achieving greater co-operation with associations in Europe, indeed in many instances I have tried to promote BIGGA in Holland. Further, I have no wish to take away anything from my Dutch colleagues, who in the last few years have formed their own association which is growing very vibrantly and successfully, and I would take this opportunity to wish them all the best for the future.

Nevertheless, as a Scotsman working for nearly six years in Holland, I feel somewhat left out of BIGGA because I cannot relate to an individual section/region, i.e. Scotland, England, Ireland or Wales. Understanding that BIGGA stands for the British and International Golf Greenkeepers Association, and knowing that in the Netherlands alone there must be a dozen or so fellow greenkeepers who may feel of a similar disposition, I wonder if there are any future plans for a European section of BIGGA? I would personally be glad to be part

of such a section and if necessary I would get directly involved. If interest from Dutch members was not strong enough, I am sure there could be justification for combining members from Holland, Germany, Belgium etc. I therefore would be interested to see what kind of response our members here on the continent might give, either by writing to BIGGA head-quarters, or to me at the club address below.

COLIN FAIRLEY

Course Manager, Vereniging Golfclub, Almeerderhout, Watersnipweg 19-21, 1341 AA Almere, Holland

• Executive director, Neil Thomas welcomed Colin's letter, lately having been active in following up on the successful European Forum held during last January's BTME. He commented, The Association is very much aware of the problems experienced by our international members and is planning a second European Forum at the 1994 BTME. We are extremely anxious to make positive progress in establishing a sense of belonging' for our European members. I am currently seeking contributors for the forthcoming forum and would urge our members in Europe both to attend and also, should they feel inclined, make a short contribution to the proceedings. Anyone willing to speak at the forum should contact me without delay, as the BTME seminar programme will be finalised shortly. The seeds have been sown during 1993 for BIGGA's development in Europe - there must now be a concerted effort to meet the aspirations of those of our members at the forefront of greenkeeping in Europe'. - editor

Working Down Under

The May article 'Future of the Fescue' was most interesting to me, an Englishman working and studying in Western Australia. I plan to return home to Kent in 1994.

I work at Cottesloe Golf Club, a prestigious course in Western Australia, and I am also studying a course in Turf Management. As part of this course I am preparing a report and will subsequently talk on the varying aspects of cool season grasses.

In the UK, cool grasses are obviously used throughout the industry, whereas here in W.A. their use is limited to some occasional overseeding of fairways during the winter, usually with creeping red fescue. However, all the greens in W.A. are seeded with pure creeping bent, mostly of the Penncross variety, though new constructions are now tending toward the use of variety 1019. We also have problems with *Poa annua*, mostly in older greens, so naturally I have an understanding of how this can affect playing surfaces.

Returning to the article, my understanding is that even if one is fortunate enough to have ideal construction methods and a sympathetic management team (one that allows for limitations in play to provide full establishment and training of the fescue), there is still nothing to confirm the elimination of *Poa annua* from the greens. However, the most desirable qualities of fescue are its ability to withstand and recover from drought and its tolerance to heavy wear. This undoubtedly requires further testing and investigation in order to find out more of the management practices necessary to encourage its growth, and how well it stands up against the *Poa annua* invasion.

I would be most interested to learn more regarding fescue or its alternatives, also I have an interest in fescue/bent mixes for greens and wonder how these work, especially as bents have a high fertility requirement and fescues have a low fertility requirement, also I am curious to learn which varieties (of each) are generally used?

Finally, I really enjoy Greenkeeper International and find it most informative. If I can be of help to anyone regarding greenkeeping practices in Western Australia, please don't hesitate to contact me.

LEE SAYERS

Unit 14, 7 Merope Close, Rockingham 6168. Western Australia

• A highly respected agronomist commented on Mr Sayers' letter thus: "I don't think we need more research testing or investigation into the management practices necessary to encourage fescues. With bent/fescue mixtures, often the fescue acts as a nurse until the Agrostis takes over—but which one dominates depends on the soil and management, and maybe if both are less than ideal Poa takes over". No doubt there are others, seed breeders perhaps, who will be tempted to offer Mr Sayers the information he seeks—editor.

Praise for team

Through the letters page may I express thanks to my team at Carden Park for their tremendous efforts in seeing the Carden Academy open ahead of schedule. The level of skill and commitment they have shown, particularly for young men, is heartening in these times and certainly augers well for the future of greenkeeping.

The conditions in which they have worked have been more than arduous and it is to their eternal credit that they have achieved such

The team comprises Rob Bryant, Justin Cheung, Peter Gabriel, Ian McDougall, Dave Wates, Chris Bryan, John Lightfoot, Chris Halton, Tony Wellings, Len Sproston, Andrew Woodcock and Jamie Poole. To a man, they fully deserve the recognition they have earned. Hopefully they will draw deep on the experience and I am most grateful for their help and support.

ANDY CAMPBELL

Course Manager, Carden Park, Chester, Cheshire

Letters

Follow the Code

May I air my views on the interesting points raised in Kerran Daley's July article concerning worm control? Although I confess to being too young to remember the nightmare scene described, that of greenkeepers with handkerchiefs wrapped around their mouths walking through billowing clouds of lead arsenate, I can however describe the scene of a golf course built on heavy soil supporting more than its fair share of worms, i.e. playing surfaces which are the result of years of hard work being ruined almost overnight, of maintenance operations interrupted, golfers frustrated, and in some cases winter rules having to be introduced to allow the cleaning of golf balls on fairways - all of this can be very disheartening.

Perhaps if lead arsenate could have been researched and refined into a product that would have permitted its use today, with the help of a strict code of practice of course, or even perhaps with the issuing of a special licence to handle it, surely the ability to use such a product once in eight years, rather than applying today's products three or four times in one year, must have clear advantages.

Like Kerran, I agree that accidents can happen, but surely the more pesticide applications one now needs to make increases the risk of accidents. I also agree that protecting the environment is important and can only hope that the new chemicals marketed today (as a substitute for lead arsenate) do not in time show them to be a greater environmental problem, as they are having to be used more frequently and in far greater quantities.

The decision to kill worms in the soil is not one to be taken lightly, for the contribution they make to the soil structure is undisputed, but when a point is reached when a pesticide is needed, I for one would prefer a total control, one hit solution. This would then allow the greenkeeper time to choose the correct conditions for a safe application, rather than frequent applications at a time of the year when applying pesticide can be a major headache. The main point Kerran raised - and the point on which I would like to finish - is that careless greenkeepers abusing pesticides can give any product a bad reputation. Therefore, it is up to us all to follow the Pesticide Code of Practice, and if you haven't got a licence then it's about time you did!

GORDON J INVINE

Course Manager, Mill Ride Golf Club, North Ascot, Berkshire

Travers has a point

May I, the greenkeeper *and* professional of some 30 years at Leek Golf Club, offer further observations on the article "Greens Must Not Be Spared." To begin, I must agree with Mike

Travers on a number of points. Over the Christmas holidays we must accommodate at least 200 players each day if the weather permits. I am at the club at 7am each morning, getting everybody lined up and collecting green fees from members guests so that we can be away at first light! What a great time we have, with mince pies, sausage rolls and various malt whiskies to sample.

In the winter period we cut three separate holes on each of the eighteen, one on the green proper, one on the surround and one on the temporary green. The surrounds are very large, which encourages trolley-pullers to keep away from greens and surrounds, and in addition we push tee positions forward so that regular summer landing zones are rested.

The course closes itself if the weather is foul, additionally we ban trolleys when the ground is white over with frost or when frost is rising from the ground surface. When such conditions arise the flag is moved from the main or surround hole to the temporary green.

Finally, BIGGA and other greenkeepers associations alike, with education available to their members, are certainly moving the right way forward! On the other hand, the poor PGA member cannot say the same and for his large subscription (in the Midlands it has risen by 40% in the last three years) the average PGA member gets very little from his organisation. Bear in mind, a few years ago most jobs were pro/greenkeeper run and remember that us old lads still have a great deal to offer. I myself am still young at heart, still learning, and still working 12-14 hours every day, seven days a week

PETER STUBB

Leek GC, Staffs (member of PGA, BIGGA and IoG)

Most important tool

Having been in greenkeeping for 15 years I've often mused over what is the most important piece of equipment in our profession. I'm sure there have often been discussions on this very subject. There are one or two that spring instantly to mind, e.g. could it be the amazing three-wheel truck that seems to carry out all those jobs required on the course, stopping short only of making sandwiches and coffee, or maybe the latest triplex that does 0-60 in under six seconds and cuts 18 greens inside the hour, with specially designer groomer things that control thatch build-up? I think not!

In my opinion, the most valuable tool for greenkeepers is the Sony Walkman. It is solely responsible for keeping me in the profession to this day and I am deeply indebted to the person who invented it.

I'm sure most of us have been in the situation when, as a gibbering wreck of an apprentice, we've waited to be told our duties for the day and hoped for a nice, cosy job – after all, it is freezing outside with a chill factor of minus 12°, surely the boss will take this into account? Wrong!

Unfortunately, it is your turn to slit greens on the compact without a cab. The only thing that prevents you from being carted off to the 'funny farm' is your personal stereo. However, there are some important factors to consider before using the stereo, most important being your COSHH assessment, i.e. some forms of music have proved harmful to health and environment, and wavebands such as 'Take That, and 'East Seventeen' have been given a hazardous 'irritant' classification and for the sake of sanity must at all times be avoided.

Important guide-lines for purchase are: 100 watts per channel (to drown the sound of the diesel engine); mini headphones (can be hidden under woolly hats to fool golfers); an endless supply of batteries.

In January 1988 my worst nightmare came true. Working at Romsey GC I had six greens left to slit when my batteries died. Without spares and sans music, getting through the afternoon proved to be a real character-building experience, one I have no wish to repeat. As a precaution I now use re-chargables, with a back-up set always at the ready.

Let's hear it for the Sony Walkman, which should be awarded the Most Important Tool for Greenkeepers' Award 1993...

LINDSAY ANDERSON

Course Manager, Badgemore Park GC, Henley-on-Thames, Oxon

Mowrah memories

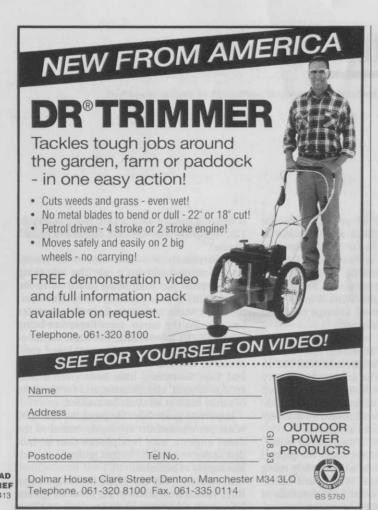
I have the clearest memory of using mowrah meal in the early sixties to control worms in fine turf. It was an unpleasant operation to carry out and caused much irritation to the operator as the material was very much like powdered pepper!

Talking to Jim Arthur and some greenkeepers earlier this year about early pesticide usage, we talked about who made mowrah meal, when it stopped being used and why. We were not sure of the facts so I asked the Pesticides Safety Directorate for some background information. To my amazement, the reply stated: "I have been unable to find any record of MAFF approved products containing mowrah meal"!

I would be very interested to hear from more 'mature' greenkeepers if they have any information or memories of using this product. Perhaps there may also be clubs that have kept old records of purchase orders going back 30 years, which would identify the manufacturer? Can anybody remember the correct application rate? I seem to recall that it was 6-8 oz. per square yard. We should not let allow our history to fade so quickly!

JON ALLBUTT

24 Sunningvale Ave., Biggin Hill, Kent





For information or a demonstration please contact



No 1 Yard, Barlby Road, Selby, North Yorkshire Y08 7AB Tel: 0757 210007 Fax: 0757 210020

What



Monitoring the weather brings useful advance planning, says Gordon Jaaback. And what better way of keeping the records you need, than the have your own, personal weather station

We are taught of the need to characterise soils, though some have debated the need for soil tests – so why should we measure rainfall, temperature or anything else for that matter? Yet the turfgrass environment is an unnatural one. For example:

- we mow closely and frequently
- we fertilise
- there is an unnaturally high plant density
- the human and mechanical traffic is intense.

Therefore the culture of high quality turfgrass is a challenge, demanding a great deal of flexibility and involvement with manipulation of the plant environment. It is imperative that the turfgrass manager has a thorough understanding of the atmospheric, soil and biotic (living organism) factors effecting the turfgrass environment.

Tabulating certain measurements daily can be fun and makes the challenge easier. However, quite apart from recording daily conditions for our own pleasure, these measurements will provide us with an insight as to what is likely to happen in the next 24-48 hours. For example, did you know that:

- Temperatures just below the soil have to be rising through 8°C before there is active movement in grass growth. Light frosts have little effect on temperatures below ground level and subsequent root growth.
- Humidity, coupled with mild temperatures in the spring and

autumn, provides ideal conditions for fungal diseases. Also evaporation rates are lower when high humidity is coupled with cooler temperatures. Monitoring temperature and humidity can assist in predicting dew, the removal of which is important in disease control.

- High pressure persisting after a warm day will indicate continued dry conditions, with every possibility of calm, wind-free conditions for spraying in the early morning. However, if high pressures continue with increasing temperature there is every likelihood of a build up of moisture in the atmosphere, giving a good possibility of thunderstorms.
- Low barometric pressures generally indicate wind and/or rain together with a temperature drop and lower rates of evapotranspiration (evaporation plus the transpiration losses from the plant).
- Wind tending to increase on a clear day can, when coupled with a drop in pressure, often produce drenching rain but there can be little precipitation in squalls. A dry wind within 48 hours can bring rapid deterioration to grass cover.
- Clouds with intermittent rain, however little, mean negligible evapotranspiration. The type of clouds and their height can indicate what the wind is doing and whether rain is imminent or not. High cirrostratus clouds denote wind movement and a possible change in the next two-three days. Cumulus clouds only bring rain if they develop height. Lower

AD REF

about the weather?



A somewhat sophisticated weather station, the Intelligent Automatic Station by Casella

cumulus clouds soon disappear.

• Rain intensity in the South East is generally light. As an example, in the wet years of 1985 and 1986 at two locations almost 80% of the rain days recorded measured less than 5mm in 24 hours. In both years there were 17/20 days when rainfall exceeded 10 mm in 24 hours. On wet heavy loam soils as little as 3mm rain may be subject to run-off to lower lying ground.

• Frost can develop when the recorded temperature is 3°C. An understanding of the temperature variation below ground, at grass level and in the Stevenson screen, coupled with humidity, is vital.

Not only is the keeping of records an interesting talking point, but monitoring the weather and soil conditions and tabulating the pattern over a growing season can be most informative in planning seeding operations, preparing for pest control treatments and for fertilisation and irrigation.

A basic weather station would include a rain gauge, a grass minimum temperature thermometer, a maximum/minimum thermometer and a hygrometer for measuring humidity. A kit-made Stevenson screen (white louvered box) can house both the last two items at a convenient and carefully chosen location five feet above the ground.

A more comprehensive station will further include a barometer, an anemometer for measuring the amount of wind in the day, thermometers at grass level and at the depth of root growth – and a simple evaporation tank. Sophisticated automatic recording equipment measures data that can be coupled to computer programmes.

With an emphasis on recording temperatures and rainfall, further information regarding the purchasing, siting and use of these and other meteorological instruments will be given to any reader of Greenkeeper International who cares to contact the author.

consulting agronomist and conservationist Gordon Jaaback, has developed a new and comprehensive golf course wall chart designed specifically for the simple recording of work carried out relevant to forward planning. A free copy of this laminated multi-coloured chart may be obtained by telephoning him on 0732 455244 or writing to 25 Cheviot Close. Tonbridge, Kent TN9 1NH

The first ever Hayter Challenge **Tournament Final takes place in** September at Sand Moor, a venue brimming with history and a course which is a real delight, reports DAVID WHITE

here surely cannot be a greenkeeper who will not have heard of, or indeed who will not in some way hold in awe, the name of Doctor Alister Mackenzie, that cleverest of golf course architects and acknowledged master of the ingenious green contour and enticing sculptured bunker. Who though, outside of a handful of the keenest golfing historians, will register so much as a scrap of recognition for the Leeds clothier, Henry Barran? I can almost hear my readers' mind cranking into overtime, wondering what possible bearing this line of introduction can have on the Hayter Challenge Tournament Final.

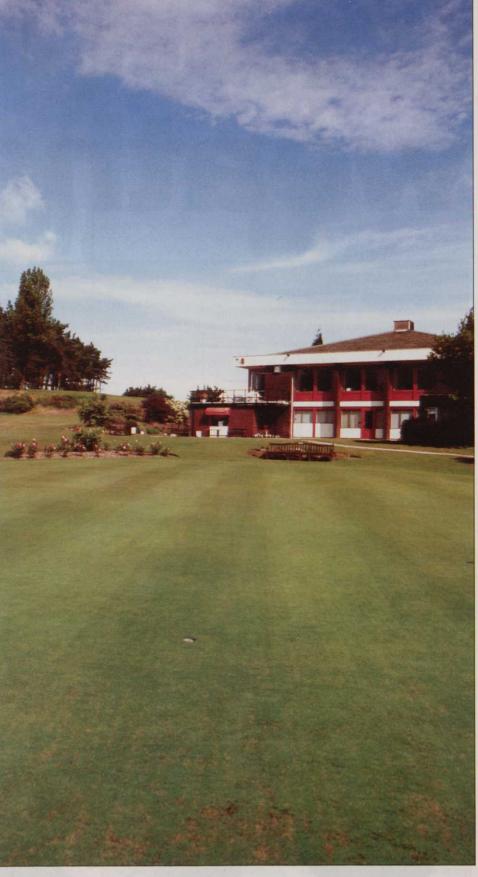
Yet at Sand Moor Golf Club on the outskirts of Leeds, those players who have fought the good fight to qualify for the first ever Hayter Challenge will be privileged to witness one of perhaps the finest marriages of minds, though they will sample a mere 'taster' on the first hole and then be held in suspense until the par four 358 yard fifth before again walking the hallowed and relatively unaltered ground upon which Mackenzie and Barran enacted their joint masterpiece.

Local legend has it that Henry Barran made his fortune in the clothing trade, as a result becoming a landowner of magnitude, many a cres of which overlooked picturesque Wharfedale. He also boasted a wife who was the archetypal lady golfer of the day, keen to play all the hours that God created but without a patch to call her very own - enter Barran,

the golf course developer.

Owning the blessed land upon which Sand Moor is now located, Barran decided that a golf course of considerable magnificence should be constructed, one that would complement the remarkable views toward the adjacent Eccup Reservoir. One may surmise that Barran's contribution was both fiscal and practical (it is written that he 'laid out' the course), and imagine that he also demanded the best that money could buy. Above all, it is suggested that he decreed the club would take ladies into the fold and that they would enjoy equal rights with gentlemen players - this at a time when many ladies were struggling merely to be allowed through the clubhouse door. Was this, one wonders, an early case of a captain of industry falling under petticoat rule? Perhaps it is better we do not know.

Sadly, any records that may have existed in the early twenties concerning those commissioned to undertake the actual landscaping and shaping work, the Brian Pierson's of the day so to speak, do not exist. What is worse, there is nary a mention of Dr Mackenzie's input into Sand Moor's design brilliance in any of my cluster of books on famous architects and their golf courses. It matters not, for one has only to walk any of the fourteen original



holes remaining to see Mackenzie writ large, as clearly individual as, say, the buildings of Inigo Jones or the paintings of Pablo Picasso.

The Sand Moor course is different from its near neighbours, all almost within a good brassie shot of each other - Alwoodley, Moortown, Moor Allerton - in that the sub-soil consists of sand and sandstone. Hence its name! It is nurtured (not too strong a word) by head greenkeeper Bobby Barnes, as dedicated a man as ever I met and one who has been in charge of Sand Moor for approaching thirty

years, knowledgeable to the extent that in listening to him one senses he knows every single blade on Sand Moor's 110 acres, rather like a shepherd knows his sheep.

Bobby was around in the sixties when the original course was split in two by Alwoodley Lane, with the clubhouse and the first two and last holes on one side of the lane and the remaining fourteen on the other. The committee of the day decided that changes were called for and additional land was acquired to bring all eighteen holes onto the north side of

the lane. To all but the fiercest Mackenzie devotee those new holes, now with number jockeying known as the second, third, fourth and thirteenth, are very good indeed, but I am sure the members of Sand Moor will forgive me if I dare to suggest that they lack that certain something which only Mackenzie could have fashioned, though we all appreciate that when the good doctor rode Time's winged chariot the mould was broken.

By way of recompense, if my criticism of the new appears harsh, praise must in like fashion go to Bobby Barnes for his interpretation and introduction of several 'Mackenzie style' concepts, with my applause in particular reserved for his clever work on and around the thirteenth green! On that score, I am a push-over when I meet folk who share my passion for classic golf architecture - I didn't need Bobby to wax lyrical over his golf course, for having done my homework in the library I was sold on Sand Moor before we met. That stated, I enjoyed and was held spell-bound by the man, once begun never daring to cut him short. The thought crossed my mind several times, I'm in the presence of a true believer, a worshipper at the Mackenzie Temple and a greater admirer of the man's work than me - and it shows!

Bobby Barnes is a dyed-in-the-wool countryman, by his own admission one who might just as happily have been a gamekeeper, certainly one who is never more content than when at work on the golf course or at play on the Yorkshire moors, invariably accompanied by the beloved gun dogs he breeds for game shooting work. Conversely, had the timing been different he had the raw golfing talent to have followed in his father's footsteps, a pro golfer who was attached to Sand Moor for most of his life. Bobby told me of the day that inspiration for work in golf course management finally struck him - out on the practice ground, watching a greenkeeper at work - and thinking how much he would like to be doing that fellow's job. Now this is a complete reversal of the more common scenario, that of the greenkeeper who would almost kill to be a professional golfer, but he grins when he says he'd have likely starved for all the lack of cash there was in tournament golf when he was a youngster, a winner's cheque then rarely exceeding fifty pounds!

So the loss to pro golf of Bobby Barnes was a win for greenkeeping; and if proof be needed of the wisdom of such action those thirty or more years ago, one need look no further than Sand Moor itself. Not only is it a delicious place upon which to tee the ball, but it also boasts the finest practice facilities, hard by the clubhouse and only yards from the first tee, with length enough to take the longest of

drives. It is also a breeding place of champions, boasting two British Amateur titleists in Alex Kyle (1939) and Iain Pyman (1993), along with a star line-up of County, National and Walker Cup players and including no less than two Walker Cup team members in this year's event at Interlachen, Minneapolis - Iain Pyman and Stuart Cage. If all this isn't enough, the club's cup of cheer overflowed in July when at Royal St George's Iain Pyman became the lowest scoring amateur player ever in the whole history of The Open... and one may hope that a smidgen of Iain's talent may magically rub off onto the Hayter Champion, Sand Moor being a magical sort of place!

Bobby Barnes is no newcomer to preparing the big event, for Sand Moor has played host to many a championship. Nick Faldo won the Car Care International there in 1983, edging out Howard Clark by one stroke, both leaving Seve, Sandy and Bernhard in their wake, whilst in the club's Jubilee year (1986) the PGA Assistant's staged their own Championship and were honoured to have Henry Cotton return to watch them and admire the course where 51 years earlier he'd won the Yorkshire Evening News Tournament. Sandwiched between these 'named' championships there have been countless county and regional events and these have all been taken in Bobby's inimitable stride.

In thirty years, like any greenkeeper on earth, he's seen both ups and downs in course management and has succeeded in riding many a hiccup. Thus it would be churlish of me not to mention that the 1993 season began for Bobby in less than perfect fashion. Drawing a comparison to illustrate the reason why Sand Moor's delicious fescue dominant greens suddenly and mysteriously began to lose their sparkle, Bobby likened the situation to that of a health conscious dieter who, without realising, oversteps the balance and becomes ill rather feeling better. In his view, following a recommended phosphate free regime, the greens in a remarkably short space of time came near to being anorexic before being nursed back to good health, though I am pleased to report that Bobby's sinking feeling, one that must at some time hit every greenkeeper when something inexplicable happens and the reasons are not crystal clear, has passed. That stated, Bobby will tell you that the first six months of 1993 have been the most difficult in all of his greenkeeping career, a period which he has no wish to experience ever again.

Picking selected holes for Hayter Challenge Tournament players to savour, I would suggest that all the short holes, the par threes, warrant careful examination, in particular the 186 yard eighth, which is regarded as the toughest, and the 173 yard tenth, which is a classic hole in any language. Take special note also of the par four 13th, for it has much of Bobby Barnes stamped upon it, and save your best for the par five 16th, which with its elevated green set into a hillside is considered by many to be Sand Moor's finest. Finally, enjoy the tremendous closing hole, an uphill drive between O.B. on the left and trees on the right and a second shot where you must deliver accurately in order to avoid the cluster of bunkers on the left of the green, two of which are Bobby Barnes' own creations, though built in true Mackenzie-like fashion. I defy you not to relish this golf course, which fully deserves its description - 'the finest example of a golfing paradise being created out of barren moor'



Pictured left, the Sand Moor GC clubhouse; above, some of MacKenzie's bunkers

Flying Divots

Character returns

On a stormy night in February 1990, an enormous gale-whipped sea broke through the shingle bank protecting the Westward Ho! course, which is the oldest English links course, established in 1864. The inundation of low-lying areas was extensive but furthermore, serious damage was caused to the huge sleeper-faced Cape bunker at the 4th, undermining the timber facing and causing serious erosion.

One of the first tasks of RNDGC's new general manager, John Linaker, was to restore the links character of the course, and especially to reinstate the bunkers to their original design. Many had been damaged by grazing animals (which had free access under commoners rights), had grown in, broken down and become smaller.

Clearly, reinstatement of the Cape bunker was a huge and immediate challenge. Aided to some extent by a grant, half the bunker was refaced starting early last winter, using not sleepers, but 28' long timber piling from Gravesend jetty, the hardest wood imaginable, Indian oak, which cost the club countless chain saw blades.

Apart from hiring a JCB and driver for eight days, all the work was done by the greenkeeping staff under Ted New. The timber piling was sunk a minimum of 6' into the sand and laid back at an angle calculated to avoid balls rebounding. The result is dramatic, giving an instinctive comparison with the right hand half in its original state. One thing is certain, the Cape will outlast us all and it is surely not tempting providence to say that it will give as good as it gets if the sea ever invades again.

It is especially gratifying to see how quickly the true links character is returning to the greens under a programme based on traditional greenkeeping, implemented with enthusiasm and conviction by Ted and Robert New, under the guidance of that old team going back twenty years or so, John Linaker and Jim Arthur, including such as Fulford, Gullane, Moor Park and Castletown.

Good ideas department

Here is a little idea which may be of interest to fellow greenkeepers. I purchased a metal drag mat which I use when top dressing, essentially to break up hollow-tine cores. A problem arose with the metal bar fixed across the front of the drag mat which, when dragged across our undulating linksland, scuffed the ground.

To alleviate this problem I obtained a old baby push chair, cut the axle in half, and bolted a single wheel to each end of the metal bar – thus raising the bar level by about two inches. Since fitting the push chair wheels I have found the mat much easier to use, especially when pulled by hand around confined areas such as raised tees.

 John Phillips, Head Greenkeeper, St David's City GC., Dyfed.

How's your back?

A new campaign aimed at lightening the load of those who manually handle goods at work – the biggest single group who suffer work-related accidents – has been launched by the Health and Safety Executive.

Announcing the campaign, Dr Tony Leach said: "Over a quarter of all accidents at work... arise from manual lifting, handling and carrying. Each reported injury results on average in 20 days off work – estimated at over 3 million working days per year in total... This can affect almost every employee in any working environment where handling a load presents a risk. We are aware that employers need simple, accessible guidance on the relevant legal requirements and on how to avoid the costs which can arise from risky, and often inefficient, manual handling practices."

Dr Leach added: "This new campaign draws employers' attention to their responsibility for assessing the potential problems, avoiding them where possible and making the workforce aware of how to approach manual handling tasks. The employer that does this will be protecting both staff and the business." The information pack includes a free booklet, 'Getting to Grips with

Manual Handling', which describes the main legal requirements and gives guidance on when risk assessments are needed, on simple and cost-effective steps that might be taken to reduce risk and on handling techniques. The pack emphasises that assessments need take only a few minutes' observation and the use of common sense. An employer will have to write down the assessment as a record only if it is too complex to repeat when necessary.

Copies of the pack and booklet are available free by calling (freefone) 0800 500565.

Cleaning up

Paul Worster, head greenkeeper at Minchinhampton GC, sent the following: Recently I was reminded of an incident at a previous club of mine, and now the people concerned have moved I feel safe to recount it. At this club we were fortunate in having a fine steward and stewardess who built up the catering from nothing until the restaurant was the envy of all others. They were universally popular in the club, not least with me, as I enjoyed as much as I could eat every lunchtime at very modest cost.

The only blot on the horizon was their teenage son, who had a penchant for loose women and fast cars, and in the latter department he was forever tuning, servicing and tinkering. It was nothing to come into work and find his latest car in pieces in my shed. When I diplomatically halted this state of affairs by banning his vehicles from the shed, he promptly started borrowing tools until he had more tools than we did! One particular morning we were alarmed to see him ambling towards us, causing my deputy to remark - 'This looks serious, you might as well give him the socket box so the complete set is together again'. I stood, arms akimbo, blocking the entrance, and setting aside all pleasantries I gruffly inquired what he wanted. His mumbled answer was to borrow a shovel. I thrust one into his hand, demanding to know why the Hell he wanted a shovel at that time of the morning. He looked at me with tears in his eyes and said "I've got to scrape the cat up off the road". Whoops!

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"The average greenkeeper in the UK is regarded as a bit of a soft touch"

Having now met hundreds of greenkeepers from golf courses all over the world I suspect and fear that on matters of real importance to greenkeepers - pay, conditions, facilities and the preservation of over-played greens - the average greenkeeper in the UK is regarded as a bit of a soft touch. At best, too many greenkeepers are seen as mere craftsmen who are given a say on how the club should manage its playing surfaces, but when it comes to the crunch, i.e. in matters where money is involved, they have little or no power or influence. Basically the problem is one of 'presentation', or to put it another way it is a matter of how the average greenkeeper 'comes across' to the decision makers in the club.

"Greenkeepers are too nice for their own good"

The majority of greenkeepers that I have met are sincere, practical people who care about their work but regard certain aspects of their job, such as relationships with green committees, with some apprehension. Of course, being fed on a diet of rejection every time you want some money spent is bound to make the most determined individual somewhat cautious, even when making the most reasonable requests. For me, though, the basic problem is that greenkeepers are too nice for their own good.

"Outside the peaceful and pleasing surroundings of the golf course the world is full of people who do not trust each other'

I suspect that an aspect of this sincerity and niceness extends to being, by and large, a trustworthy person. Trustworthy greenkeepers are themselves trusting people who I believe tend to give others the benefit of the doubt. Trust is in itself a very kind, almost noble thing for which, in a perfect world, we would reward people handsomely. However, outside the peaceful and pleasing surroundings of the golf course the world is full of people who do not trust each other, particularly with spending each other's money wisely. This results all too often in our trusting greenkeepers being left feeling somewhat embarrassed and not a little betrayed when, for example, the powerful case they thought they had for a new tractor is rejected out

"We can change or can appear to have changed fairly quickly"

It does not have to be this way. If we want to be a part of the decision making process, if we want to get what we really need to do a good job of work and to influence our own careers, then we have a choice of at least four options in all difficult work situations.

Option 1: Change the situation; Option 2: Change myself;

You know what's wrong with greenkeepers? They haven't a due!

FRANK NEWBERRY, a management consultant and since 1989 a regular at BTME in Harrogate and the Autumn Management Courses at Aldwark Manor, is angry about the way greenkeep-

ers are treated by some people at their clubs. In this his first article for Greenkeeper International, he outlines the problem as he sees it and searches for a workable answer. If you want to hear more about this topic or would like to attend one of Frank's courses, contact BIGGA's education officer, Debbie Savage, at BIGGA HQ.



Option 3: Live with it creatively, or Option 4: Leave!

Given my contention that it is the perceptions some people have of greenkeepers that lie somewhere near the root of the problem, I intend to confine my thoughts to Option 2: Change Myself: I want to focus on three things that we can change or can appear to have changed fairly quickly. The three categories are:

- 1 My appearance, or the image of myself that I project.
- 2 My agenda, or the things I want to get done.
- 3 My paradigm, or my view of the

Oscar Wilde once outraged Victorian London when he asserted, amongst other things, that 'only shallow people do not judge people by appearances'. I am not sure if he was being sincere, but I know I am influenced significantly by the way people present themselves to the world. An old friend of mine who worked in the construction industry and had no formal qualifications always seemed to be able to get supervisory jobs on building sites very quickly. He put it down in no small part to the clothes he wore. He told me that he always wore a clean shirt and tie under his overalls. It would seem that he looked clearly like he was part of the management team!

In an increasingly sophisticated world we need also to consider more personal aspects of appearance such as grooming, cleanliness and the condition of our apparel. If we can project a serious image with

our appearance we are much more likely to be taken seriously. Most people tend to view a person's choice of clothing and personal grooming as an extension of their personality, attitudes and values. Changing our appearance for the better is in turn viewed positively by others. Most seem to feel that people who take their appearance more seriously have (increased) self respect. We tend to feel more confident in smart clothes, so upgrading our appearance is truly a win/win opportunity worth considering.

"People tend to resist a single option solution for problems."

My agenda: I have all too often seen excellent arguments for genuinely needed resources fall quickly because the committee typically suspected they were on the wrong end of a high pressure sales job, fairly convinced that the individual making the case had been fully briefed by the salesman of the product being requested. People tend to resist a single option solution for problems. It seems to make them feel that only one solution (the most expensive) has been considered, that they have not been given a real choice, that the person proposing the solution has not considered their needs, that the person only wants what is best for him/her, that he/she is working only from his/her agenda and not the real one, i.e. their

Choice is a powerful motivator and an element of choice needs to be present in most things if we are to accept an argument to be true. Over a number of years I have learned the powerful lesson that if I want something, I stand the maximum chance of getting it if:

- a) I can argue powerfully for more than one option, and
- b) the other person feels he/she has

a genuine choice. I have had success when options

are limited by remembering that: one option will get a lot of scrutiny and criticism; two options will give people a confusing dilemma - which to choose? (no-one wants to be wrong); three options could be a genuine choice and a fourth option - if there are three options, there is always a fourth - is the 'carry on as we are' option, fully costed like the other three options.

By making the case for three or more options we have to argue fairly strongly for all three. In doing this we can see the best option as it appears to the people who have to decide. We should not forget, in giving a choice of options, to carefully imply what, in our professional judgement, is a sound choice in the circumstances. By tackling the problem in this way we show committee members that we can:

- adopt a managerial approach to work problems;
- demonstrate our professional standards;
- prove our trustworthiness by working effectively on other people's agendas as well as our own.

"Circumstances do not make the man: they only reveal him to

My paradigm or view of the world could ultimately determine whether I succeed in any endeavour. If our view of the world suggests that greenkeepers are nice people but others sometimes take advantage of this - then as we go through life it is a fair bet that some people probably will take advantage! If we are convinced that we cannot get through to some people - we will probably try for a while and then give up. If we believe that because of our lack of opportunities in life and limited qualifications (I have just the one 'O' level) that we will not get on in the world - then we probably will not have much of a career.

In conclusion, and to reinforce what I have said, we could do worse than be quite clear about two things. First, no-one is going to do it for us - and why should they? Second, as we seek to change people's perceptions of greenkeepers we might remember the words of James Allen, who said that 'circumstances do not make the man - they only reveal him to himself.

We will start to get the professional respect we deserve and the resources we need to do the job well when we are personally ready and not before. It may mean changing our appearance slightly, facing up to some of our harsher realities and altering our perceptions somewhat, but for the people I have had the pleasure of seeing pull it off already the effort was well worth it. Good



BIGGA AT











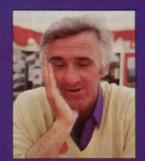


PHOTOGRAPHS BY DAVID WHITE



Pictures: this page, top (in circles): BIGGA members with the players; main picture: Derek Scarborough, head greenkeeper at Royal st George's, with members of the BIGGA support team; above left: BIGGA Chairman John Crawford and ICI Professional Products' Roger Mossop; centre: thirsty work satisfied; father and son team, the Cross family; left: an arresting sight – fun as BIGGA members are 'cautioned' for failing to rake bunkers at the correct angle!; below left, work continues by mobile 'phone, miles from HQ for BIGGA Executive Director Neil Thomas and, below right, overwhelmed by it all is Richard Heaslip, who accompanied Greg Norman on his historic victory round







IT WAS A TIME when Greg Norman, the Great White Shark, finally exorcised the ghosts that had threatened to destroy his career, exhibiting a display of absolute brilliance that prompted former Open Champion, 91 years old Gene Sarazen, to remark "Are those football scores or golf scores?" It was dramatic, sensation, tear-jerking stuff and there will surely be greenkeepers in years to come who will proudly boast to their grand children -'ah, yes, I was there, I walked with those who set out to annihilate Sandwich, I actually witnessed the second Norman Conquest.

It was a time also when the prophets of doom and gloom were firmly put in their place, the golf course prepared by Derek Scarborough and his team of 'wonderful characters' properly acknowledged as a fantastic test of championship golf, one that will remain on the Open Championship roster, the leader board reminding us time and again that 'cream' always rises to the top!

Of the greenkeeping fraternity there was nothing but justified praise, indeed admiration - remember that momentous occasion at the infamous bunker on the fourth, when we nearly lost one of 'ours' in what could have

been a sandslide burial? The whole success of 'Operation Greenkeeper' was summed up perfectly by a matronly **American** lady who was heard to observe, in a drawl you could hear in Dover, "Geez, those greenkeepers look so neat and do so well - and they pack an awful mean rake - what wouldn't I do for a bunch of 'em to take with me back to Ohio... what indeed. Let's hear it for those good of Biggamen!



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AD REF f 'Capability' Brown of landscaping fame had been designing and constructing golf courses in the 18th century instead of laying out the parks of England's stately mansions, he would certainly have been equally successful in re-shaping the golfing landscape by moving hills, digging lakes and transplanting large trees.

Today's golf course architects might be seen as the heirs to many great 18th century landscapers, where they succeed in reshaping the new golf courses, yet retaining the essential character of the surrounding countryside.

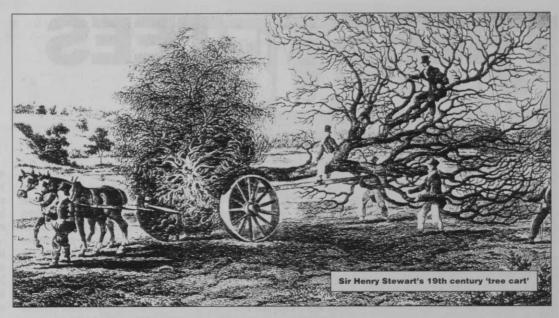
The 18th century landscapers used teams of draught horses to move large trees, but now mechanical tree-spades on flotation tyred tractors take minutes to transplant 20 year old trees, and if desired, even larger trees, up to l.5m trunk girth and 15m height, can be transplanted using 200 ton cranes and special tackle.

The proprietors and architects of new golf courses are likely to find over-mature trees on their chosen sites, often protected by local tree preservation orders (TPO's). Old established trees, especially oak and beech, do not tolerate changes in the water table, caused usually by modified drainage and land form. The skill of the architect will determine whether these existing mature trees can be retained in the design.

Increasingly, Planning Authorities expect to be offered outline applications for new courses that include extensive tree planting, either as shelter belts to screen adjoining properties, or simply to increase tree cover overall. Planning applications that incorporate generous tree planting are more likely to succeed than those that do not. Mostly this planting is done with three year old trees (whips) spaced 1.5 to 2.0m apart, and protected from rabbits and deer. But for greater effect in important positions it may be appropriate to plant larger trees.

On a number of the most prestigious new parkland courses, the developers and architects have chosen to plant large trees extensively. This has achieved the desired landscaping result immediately, instead of waiting five to ten years for young trees to grow.

Two important new courses that open this summer have recently completed large tree



TREES by the TEES CHRIS NEWMAN examines the history of trees on the golf course

planting schemes aimed at quite varied objectives.

Golf Fund plc, led by Colin Snape, is developing The Warwickshire, a 45 hole complex at Leek Wootton near Warwick, now due to open fully in 1993. Karl Litten has designed the two 18 hole courses and a nine hole par three course, constructed by Total Golf Ltd in a truly beautiful parkland setting of mature stands of beech and oak, flanked by the Victorian arboretum of Wootton Court.

The objectives of the new planting, using large trees in this already mature landscape, as explained by the landscape architect Graham Stevenson, are threefold. Most of the large tree planting relates directly to the 45 tees and greens, thereby giving visual structure to the three courses.

These trees are planted in groups of the same species or maybe two complementary

species such as pine and birch. In sympathy with the species of mature parkland trees, distinct areas of new planting along the fairways are predominantly of oak, beech, chestnut, pine and willow. The adjoining arboretum is being extended on to the course with planting of many similar exotic species from North America and Asia. The overall effect of planting these five hundred large trees at The Warwickshire is to link the course with its surrounding landscape, yet at the same time give form and direction to the course, and also to accentuate the undulating land form.

The Oxfordshire at Thame is an eighteen hole championship course which opened in June 1993, and likely, it is said, to be extended with a second eighteen holes.

Nitto Kogyo Group, which owns and manages 36 courses worldwide, commissioned Rees Jones to design the new championship course. Nitto Kogyo chose the rolling countryside site, endowed with mature oak and ash, which have been resourcefully incorporated into the undulating design. Four new feature lakes provide water and assist with drainage for the course. Mr Edmond de Rothschild continues his long association with Mr Hitoshi Matsuura, chairman of Nitto Kogyo Group, to achieve a truly English landscape setting for the designs of Rees Jones. The original hedgerow elms vanished in the 1920s, but they have been replaced by 400 semi-mature indigenous oak, maple, lime and ash from Exbury Gardens, transplanted mainly around the perimeter of the course. Once again, as at The Warwickshire, the tree planting achieves a continuation of the existing countryside, but in this instance it is a landscape of hedgerow trees, as it was before elm disease wrought havoc in Oxfordshire and all over England.

Replanting the hedgerow trees at The Oxfordshire has achieved other considerable benefits. Six of the eighteen fairways lie adjacent to the new hedgerow plantings, which provide shelter from the north and east wind. On the north-west a dense planting of these large trees screen the nearby A 329 Thame-Oxford road. Underplanting with indigenous shrubs and hedgerow plants produces a wild life corridor linking with the original hedgerows on neighbouring properties.

The techniques for planting at The Warwickshire and The Oxfordshire differ considerably. At The Warwickshire the red sandy loam and iron-stone inclusions can be made to drain sufficiently providing the tree positions are not in hollows or gullies. By contrast the blue Oxford clay underlying The Oxfordshire course pro-

TREES by the TEES

21 vides no natural drainage, so that every tree pit is connected by land drain to the course drainage system. On both courses the large trees were stored on site during the winter and spring of

1991/1992 while the courses were too newly formed to allow planting vehicles on to them. In the spring and early summer of 1992 the planting of The Oxfordshire went ahead on schedule.

These large trees of 8 to 10m height are supported against the wind by the Japanese method, using a tripod of long stakes, which also protects the trees from accidental damage by gang-mow-

ers and machinery. At The Warwickshire the trees are supported either by overhead wire guys or by stakes, as both courses are exposed to extremes of wind.

At The Warwickshire the planting has been spread over the summer of 1992, taking trees in full leaf out of storage on site. On the first eighteen holes the large trees were moved across newly planted grass by flotation tyred vehicles. Reinstatement was kept to an absolute minimum by working only during dry weather.

All these trees on the two courses have been planted, maintained and insured by the contractors Civic Tree Care Ltd of Tring, who also maintain the areas around the planting. Civic Trees expect to replace, free of charge, about 5% of trees, and the success rate at The Oxfordshire after a full growing season is 94%, despite transplanting most of the trees in full leaf.



The Oxfordshire. Semi-mature trees replace the hedgerow Elms lost in the 1970s and shelter part of the course from the A329 Thame-Oxford road, and the north east winds



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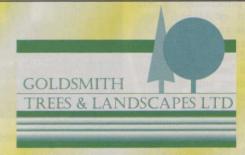
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On established golf courses the planting of young trees as copses, woods and shelter belts creates a 'tree bank' that in five, ten or twenty years can yield, by the normal process of thinning, substantial numbers of surplus trees to replace losses on other parts of the course. Young trees, well planted, tended and protected for the first few years, can double in value every two to three years, and may remain available in these 'tree banks' for up to twenty years, before they become too large to be transplanted economically. The cost of transplanting by tractor tree-spade can be as little as one fifth of importing an equivalent tree from a nursery.

Already many established courses have these 'tree banks' of semi-mature trees that have grown up naturally from selfseeded saplings. In order to realise the potential of these surplus, yet valuable, trees it may be necessary to cut out the less good specimens to make space for the best to flourish and develop a full crown for several years prior to transplanting them on to the

Trees in the landscape are more valuable than ever before. Everyone involved in the countryside is aware that disease, storms, squirrel and deer can ravage the most cherished trees. An annual or bi-annual programme of replanting with young trees will ensure that the country's tree heritage is carried on into the next century.

• The author, Chris Newman, started designing large tree moving machines in 1960 and formed Civic Trees in 1963, a company that grows, supplies and transplants semi-mature trees throughout the British Isles. The screening of the Berlin Wall is among the multitude of prestigious projects that his company have achieved over 30 years in this area of landscaping expertise.





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Make a date for the loG Show in Peterborough, at the East of England showground between September 7-9. It's a historic occasion - the 49th and final event to be called the loG Show, as next year there's a change of name and a change of venue. On Pages 31-35, we preview some of the companies and some of the products you can expect to see

he annual Institute of Groundsmanship Trade Exhibition rounds off the many valuable golf shows held throughout the year by presenting, at one venue, the methods and technology for other hard-used sports surfaces such as rugby pitches and grass tennis courts, which can be brought to bear on golf course management.

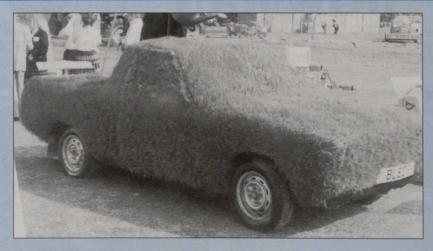
This year's 48th international exhibition is well into the usual hectic final booking period with exhibitors vying with each other to publicise new launches at the show. Even though the rate of golf course development slowed down in the UK this year, a record number of courses still opened for play despite the recession and the rising demand for play on existing courses means that greenkeepers and committees need more than ever to keep themselves informed about the latest methods, products and legislation affecting the running of their clubs.

A new-look IoG '93 provides for computerised visitor registration, carefully targeted invitations to internationally important sectors of the industry - including golf greenkeepers improved catering and revised opening hours, from 9am to 4pm every day.

The last exhibition to be held at Peterborough (next year it will be renamed and staged at Windsor Racecourse near London) IoG '93 bookings stood at 217 exhibitors by the middle of July and were rising rapidly. Nearly ten per cent have never attended the IoG exhibition before and several companies, such as Atterton & Ellis and Garfitts, have increased their original stand sizes.

On arrival, visitors could begin by meeting colleagues at the BIGGA tent (C77) and then visit the Education Pavilion to chat with the Health and Safety Executive (B33) and personnel from the Department of Environment's Toxic Substances Division (B16). The National Turfgrass Council (B7) and the Sports Turf Research Institute (PC53, 24-25) will also be there to offer advice, not forgetting the IoG's own consultancy service (Members Pavilion, Row F), and a further 24 education, training and professional organisations.

Over 52 product categories from fertilisers and feeds to tyres and vehicles are on display and with so many new exhibitors and prodSHOW PREVIE







'green' vehicle, barbecue and many, many trade events from you're certain to at this

ucts, members can be confident of an enjoyable and worthwhile day out at Peterborough. There were 31 companies showing golf course furniture equipment last year. Some that will be in attendance this year are Barlow Tyrie (M7-9), Better Methods Europe (PC52 1-2), BLEC (Demo 4 58-68), Gannon (E61-62), Golf Mats UK (PC52 1-2) Lappsett (D56-61) and Rigby Taylor (L39-41/51-53). Top dressing and fertiliser suppliers to visit include ICI (K42-45), Farmura (L13-14) and Gem Professional (PC51 7-8). The full range of irrigation equipment is represented by firms like Attack Engineering (H62-63), ILS Irrigation (G40),

Prime Waterman (D37-37A) and Watermation (M30-31) up to the latest computerised systems.

Plentiful free parking, improved facilities and a regular shuttle service between Peterborough BR Station and the showground should make your visit a pleasant one and the new format official catalogue is still probably the best industry year-book for products and services to be had. Further information can be obtained from Anne Haddon, Exhibition Administrator, IoG, 19-23 Church Street, The Agora, Wolverton, Milton Keynes, Bucks MK12 SLG, telephone 0908 311856.



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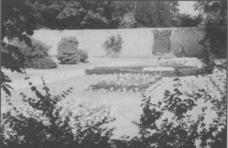


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Kubota (UK) Ltd, the leading compact tractor specialists, (stand nos C69/79 and 72/75 and demo site stand 5, areas 14/15) are displaying a number of new machines at IoG '93. The line-up includes a new tractor and new mowers for the professional operator.

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Also on show are ride-on mowers, including the professional 18hp G1900 with 4 wheel steer, and the latest in mower technology, the zero turn FZ2400 and the 18hp F1900.

Power products featured include portable generators and pumps together with brush cutters and hedge trimmers.

City Irrigation (stands PSC1 45/46) will be exhibiting components as installed in their watering systems for all areas, notably for the automatic watering of golf greens, tees and fairways. The two principals of the company have over 60 years experience between them in designing and installing automatic irrigation for golf courses in the UK and other European countries, including the Middle and Far East. With some 300 golf courses concentrated in London and the Home Counties, the company now concentrates in this area on the provision of new installations and up-grading older sysMartin Bromage Tree Care offer a comprehensive arboricultural service nationwide. Experts in supply, planting and maintenance of semimature trees, the company undertakes major contracts for a wide range of clients. Transplanting of trees using their modern fleet of tree spades is regularly undertaken with excellent success rates and machines with a rootball size of up to 2.1m may be hired, along with experienced operators.

Dedicated to the supply of a complete arboricultural service, the Tree Surgery Division of Martin Bromage Tree Care offers services such as stump removal and brushwood chipping as an integral part of the operation. Highly skilled staff and modern mechanised techniques enable the company to offer competitive quotations.

Trelleborg Limited (stand H40/41) manufactures a very wide range of tyres and rims for different applications, such as low ground pressure wheels for grassland tractors, trailers or implements and also for farm and forestry applications. Our staff have a high level of experience and will help you with your tyre requirements. We will be pleased to listen to your needs and will make recommendations that are sure to suit. We can, of course, make site visits if you have a particular problem and

Exciting times for Pattisson

As from the 5th July 1993 "H. Pattisson & Co Ltd" came under new management. The family owned company, established in 1897 has been bought out by Mr J. F. Hinch and his family. "Over the past year there has obviously been a lot of speculation about Pattisson & Co. It is our intention to continue to build the company on the family platform that has been established," said the new Managing Director Mike Hinch, "There are quite a few internal changes that are needed to ensure our service and quality of our product is 100%."

The Luton based Company supplies the majority of Golf Clubs in the UK with products such as Flag Pins, Flags, Hole Cups and an extensive range of furnishings and equipment. The product range is large enough to cater for any request from any type of sporting club including driving ranges.

Pattissons have also acquired "F.

J. Walton Productions" who make membership tags to meet most specifications. Mr Hinch feels that the personalised badges add nicely to the quality of the products already in the Pattisson portfolio.

The established UK Company has also made good inroads into Europe, supplying distributors in Holland, France, Italy, Spain and Portugal. Mike Hinch goes on to say: "This we see as a great potential market that has not been explored thoroughly. We will be looking at our operation very closely to build a solid reputation throughout Europe."

"Pattissons can deliver anywhere in the world and it was only recently that we supplied golf equipment to a club in Fiji.'

The Company itself seems to be heading for exciting times. Mr Hinch said he will be attending the IoG Exhibition at Peterborough where Pattissons have a stand.





MANUFACTURERS & SUPPLIERS OF GOLF COURSE AND DRIVING RANGE EQUIPMENT.

RANGE EQUIPMENT INCLUDES:

Play Off Mats from £147.00 Ball Dispensers from £2680.00 Ball Collectors from £1865.00 Distance Discs from £44.00 (with posts!)

AND OUR GOLF COURSE ACCESSORIES:

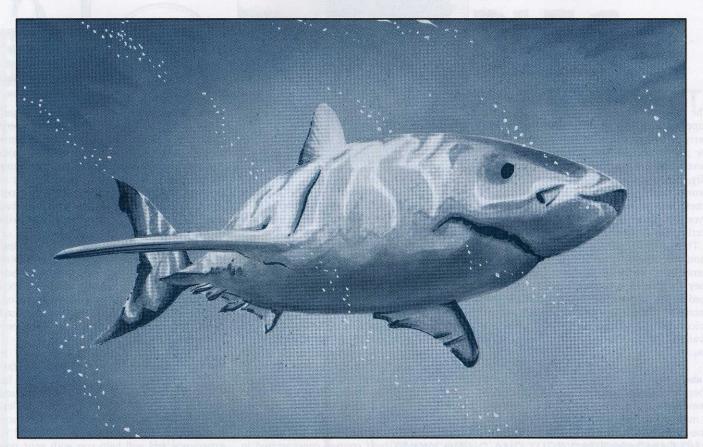
Tee Markers from £2.40 Putting Green Markers from £2.80 (New fibreglass model) Flag Pins 6ft white from £4.30 New material flags from £1.35 Boot & Shoe Cleaner Electric model from £465.00

The best does not have to cost the most!

PATTISSON & CO LTD

342 Selbourne Road, Luton, Beds LU4 8NU Tel: 0582 597262 Fax: 0582 505241

SEE US ON STAND E36/37 AT THE IOG SHOW

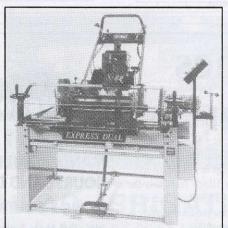


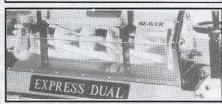
RAZOR SHARP EVERY TIME

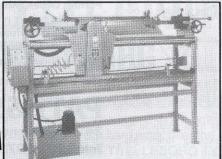
Often described as the most efficient machine in the sea, we liken this beautifully designed beast to our grinders. Capable of completing their task with the most ruthless efficiency, both are designed and fine tuned to provide the optimum performance.

Take our internationally acclaimed **EXPRESS DUAL** - frankly, there's nothing else quite like it available today. It will sharpen the cylinder whilst still in-situ in the cutting unit, avoiding the strip-down during the busy periods. It will just as accurately and efficiently grind the cylinder separately when the unit's stripped down for maintenance.

SEE US AT THE IOG SHOW STAND I 42/43







Our **ANGLEMASTER** bottom blade grinder performs with the same accuracy and efficiency, to provide the ultimate duo for today's modern workshop.

They say 'first impressions count'
- when you see an Atterton grinder,
it just looks right - when you see
how it performs, you know it's
right - when you experience the
reliability and service back-up, you
know you've chosen right.

You won't find Atterton's in the same habitat as our fearless friend, but we can safely say you will all over the world, on the dry bits! However, what we really do have in common is..."RAZOR SHARP,

EVERY TIME!"



AD REF the quality of our product and service is second to none.

For many years Undergear have specialised in tyres for golf course machinery. In addition to carrying stocks of the Goodyear Terra-Tyre (for which they are the sole UK distributor), Undergear have developed their own 'Golf' tyres for tractors and larger course equipment. The 'Golf' tyre has a broad flat tread and smoothly rounded shoulders to avoid marking during turning and the fine block tread pattern gives very good traction without marking. Many leading courses benefit from the superior performance of the 'Golf' tyre. Call on stand K1 to see our range and get expert advice on tyres to suit your machinery.

Rolawn (Turf Growers) Ltd (stand PSC1-10/11/12) will be showing its new and innovative 'Turfmaster' machine, which has been specially designed for use in places where, in the past, limited access has proven difficult for the greenkeeper to lay cultivated turf. Turfmaster is extremely versatile, manufactured in steel and measuring 5' 2" x 3' x 4' and weighing 260lbs. It incorporates an hydraulic control system for raising and lowering rolls and has a useful semi-automatic lowering device which can be used simultaneously when the laying



Rolawn's new Turfmaster laying machine

process is being carried out.

Turfmaster, which can be used by hand or towed behind a small tractor, is the latest machine to be added to the Rolawn range of laying equipment, which is supplied on loan, free of charge. Turfmaster can also be purchased at a special introductory price of £975. In addition, Rolawn will be displaying its mechanised big-roll, turf laying equipment and its extensive range of weed-free cultivated turf.

Farmura will be displaying their full range of turf management and landscape products - all of which are either organic or environmentally sensitive. Alongside the well known range of liquid organics, emphasis will be given to the new range of Flo Gro Super Concentrates, which are 2-5 times more concentrated than solutions - they offer major benefits in packaging, transport and distribution. Also, the new Blazon spray pattern indicator - Soluble E-Zee



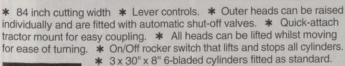
Paks - will be shown for the first time, together with the well known Blazon 1 litre packs. Of particular interest to landscapers is the Superpaver grass reinforcement system for load-bearing green areas - up to 100 tonnes per square metre is possible.

Soil conditioners and Ferrosol Liquid Iron complete the range, together with Earthbound for hydraseeding which eliminates the need for mulches. Come and see us on stand no. L13 and get details of our exciting promotion with the winner going to the American Golf Course Show and all entrants receiving a free camera!

Standard Golf (UK) Ltd and Envirogreen Limited (stand D68-69) will exhibit the world renowned Standard Golf of America's golf course furniture and equipment, including the new Tour Smooth rake. They will also launch their golf driving range equipment made in the UK, including their exclusive range and winter tee mat, which has a one year guarantee. The Golpet tee-up machine will be on display together with other unique equipment.

Envirogreen's new Envirosafe will be on show together with details of their services for chemical waste disposal, which includes contracts for empty chemical containers and unwanted chemical disposal. Pathmaker, a







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The NEW JUNO 36" capacity Cylinder and Bottom Blade Grinder will accommodate every make and type of Professional and Domestic cutting cylinders and soleplates. Simple to operate, fast changeover from cylinder to bottom blade grinding.

HESE CLUBS ALREADY DO IT!

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- - Kinross (Green Hotel) Leek Golf Club Lingfield Park

REF

- Gleneagles Hotel Goring and Streetley Haggs Castle Club

- Harpenden Golf Club

- Massereene Golf Club Mere Golf & Country Club

- Mold Golf Club Muirfield (Gullane) Golf Club
- Newbury & Crookham Golf Club
- Northwood Golf Clubl
 Omonde Fields Golf Club
 Piltdown Golf Club
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- Royal Ashdown Forest Golf Club **Royal Dornoch Golf Club**
- **Royal Liverpool Golf Club**
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- Turnberry Hotel Whitecraigs Golf Club

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WE GROW FIVE STANDARD GRADES OF TURF PLUS ANY GRADE OF CUSTOM TURF FOR ALL SPORTS & AMENITY USE. AVAILABLE FROM NURSERIES AND DISTRIBUTORS NATIONWIDE.





WE CAN SUPPLY ONLY OR SUPPLY AND LAY STANDARD ROLLS OF TURF, THE BIG ROLLS OF TURF AND UNIQUE 'LAY AND PLAY' TURF TILES.





AD REF new system for paths on sportsgrounds and golf courses, will be launched.

Johnsons Seeds colourful stand (PCS 2/4-6) gives prominence to the wide selection of mixtures available in the 'J' range, the specialist Wembley mixtures and the turf perennial ryegrass Cartel. Johnsons 'J' range has six classifications: JL for landscaping, JT for turf growers, JF for flowery landscapes, JR for reclamation, JG for golf courses and the individual J range for overall sports and amenity applications.

The Wembley mixtures – Wembley Way, Twin Towers and Wembley International – are highlighted in a special display featuring a giant enlargement of Wembley Stadium and a simulated pitch, with turf of one of the mixtures. Cartel, now incorporated into several mixtures for hard wearing turf, is featured in another live display. All visitors are welcome to discuss individual requirements with the J team and Johnsons technical specialists.

New for IoG 1993 is **Vitax** Wulch, a 100% wool non-woven matting. Wulch is a totally new concept for landscape weed control using one of natures oldest resources. Vitax Wulch biodegrades down over a one to two year period releasing nitrogen, sulphur, potassium



Vitax Wulch at a site in Sheffield prior to planting

and other trace elements into the soil. Wulch, being naturally hygroscopic, absorbs 40% of its own weight of water.

Easy to cut and install, Wulch provides the natural answer to everyone involved in land-scape weed control and will be featured along-side the full Vitax Sport Amenity and Key Range products on stand number C78.

Lindum Turf (stand D88/91) are still to the forefront as suppliers of turf to major golf course projects and will be displaying their range of turf for greens, tees and surrounds. The recently opened Monarch's course at Gleneagles, the Much Hadham golf course near Bishops Stortford and the Hallgarth Country Hotel golf course near Darlington are all examples of large quantities of Lindum Turf being laid with confidence.

In many projects now the laying is being done by one of Lindum's team of expert turf layers, utilising both large and small rolls. A visit to the Lindum stand will give greenkeepers and golf club secretaries the chance to discuss any turfing or seeding projects, large or small, with Stephen Fell or David Snowden.

Multi-Core Aerators Ltd (stand G39) are the importers of the Multi-Core range of equipment for the UK and Europe. There are four machines, two tractor-mounted aerators and two pedestrian machines. The versatile TM1500 1.5m wide tractor-mounted aerator is robust enough to handle greens and fairways alike and being fully sealed throughout it is almost maintenance free. Productivity up to 67000 sq. feet per hour makes it one of the fastest and most reliable in its class.

The TM100 is ideal on a compact tractor or for those with less horsepower, whilst for the best job on a golf course the steering Green-keeper model with riding platform is ideal. A variety of different heads and tines will also be on display, so if you are considering purchasing an aerator, why not come and meet Ian Waddington.

Inturf Limited (Stand no K17/18) are growers and suppliers of purpose-grown, cultivated turf providing high quality natural surfaces for all applications. The total range is available harvested in conventional squares and the







MONARCH'S GOLF COURSE. THE FINEST TURF IN SCOTLAND."







STANDARD SIZE OR BIG ROLLS EXPERT LAYING SERVICE AVAILABLE.

Lindum ROLLS OUT THE RED CARPET

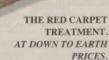
 $\mathbf{Y}_{ ext{ou won't pay a premium for Lindum's high quality seeded turf.}}$

In fact, their efficiency, low costs and minimal wastage could save you money.

The Lindum Turf organisation has grown on its reputation for quality. From the seed varieties, the groundsmanship skills, to the range of turf available - for all uses between international standard golf greens and the UK's largest garden festival.

And in its field, Lindum's service is second to none. Helpful, friendly and green-fingered staff. Reliable deliveries. Soil advisory service and turf laying facility available. Also seed mixtures and fertilisers supplied to customer's special requirements.

So why not be a VIP and get the quality and service vou deserve.





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SEE LINDUM TURF ON STAND D88, 89, 90 AND 91 AT THE IOG SHOW

Take a leaf out of our book...



Vacuum Sweepers

The result of twenty years experience, the new Trilo SG 700 provides a combination of high power vacuum, brush, scarifier and wanderhose, giving the power and versatility to cope with leaves, thatch, cuttings, hollow cores and litter.



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These wide, flat, gentle tyres are in use on some of the most prestigious courses.



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more revolutionary big roll system. Appointed the official turf producers to Wembley Stadium and accredited with BS5750 total quality management, all turf supplies are backed up with full technical support as required.

The unique turf slabbing machine will also be on display, demonstrating the new Lay and Play turf tiles. Please visit our stand and meet our qualified personnel, who will be pleased to discuss our product range and services.

British Overhead Irrigation Ltd (BOIL) will be displaying av wide selection of equipment and system components used for the irrigation of all types of sports surfaces. Their exhibit is located at the open area near gate six.

New products for this year's show include -Hunter valve-in head, gear driven, pop-up sprinklers. BOIL 'Fairway' self travelling sprinkler, capable of watering an area 235m x 35m in one pass. - BOIL/Photron hand-held activator and 'smart' decoders fore in-field remote operation of sections of sprinklers controlled by the popular CIC computerised irrigation

These items will be supported by BOIL's established product range, including Wizard 'Standard' and 'Junior' travelling sprinklers, Giant Water Square gear and impact-drive pop-up sprinklers, automatic control systems,

hand-move sprinklers, valves and fittings. A selection of archive material from the 1950s will add interest to the display.

D&E Turf Maintenance Ltd (stand J54) are specialists in turf maintenance and have an extensive range of turf aeration equipment. They can offer greens and cricket pitch aeration using the Toro Hydroject and sports pitch and fairway hollow coring using the Toro Fairway aerator. Also available: Greens hollow coring using the Toro Greens aerator with plug pulverisation, Vertidraining with either a 1.5m greens machine or 2.5m sportsfield/fairway machine, Trilo Parkland vacuum sweeper hire

You are invited to call for a competitive quotation or telephone 0388 608620 to discuss your turf maintenance problems with us - find the easy way to better playing surfaces. Working within BS5750 toward total quality.

and Shelton supertrencher drainage installa-

tion and ash grooving.

Trilo Vacuum Sweepers (Stand M27-29). Drawing on more than 20 years experience, Trilo Manufacturing have produced the SG700 vacuum sweeper as the latest addition to the range. The combination of the powerful vacuum and 2m brush unit inside the floating head means that litter, leaves and grass cuttings can easily be collected. In addition the machine has two options: a 2m tripartite scarifier which enables greenkeepers to scarify and collect in one pass; and a 6m wander hose to enable those difficult to reach areas to be

Although multi-functional and with enormous 7m3 capacity, the SG700 weighs in at under 1300 kgs and if required can be supplied with extra wide 19x17 tyres. To see this and the rest of the range, visit our stand. A warm welcome awaits!

Tillers (stand D75-77) is the name behind Britain's top-rated turf. Our customers come back to us again and again for the following reasons: They know that only the highest rated cultivars on the STRI merit lists are used in the production of Tillers Turf; Because Tillers Turf is grown on sandy soil, they are sure of free drainage of rain and irrigation water into the rootzone below; They can rely on consistently high quality turf, day in, day out, month after month; They know that the turf will be delivered on time, enabling them to plan their work efficiently; They know that they cannot get better value for money anywhere else; They know that they have the choice of a wide range of turf, supplied on big or small rolls.

Discover the full range of turf on display and



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NEW VITAX GRO-COVER PEGS PLUS EYELETS

Vitax Gro-Cover, the microperforated polythene germination sheet with its unique funnel shaped perforations, was launched at the BTME 1990.

Hundreds of satisfied users have told us that it provides the most cost effective means for better and faster grass seed establishment.

Their only request: could we improve the means of anchoring the product down on windy and exposed sites? We always listen to the trade and we have solved the problem with the new Vitax Gro-Cover pegs plus eyelets.

SEE US ON STAND C78 AT THE IOG SHOW

Worm casts can be a real handicap

See us on Stand Stand B70|71 at B70|71 at the log the low

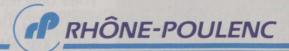
Twister Flow works fast to control worm problems in turf

Apart from being unsightly, worm casts spoil turf surfaces by causing mud deposits. These form ideal sites for weed establishment — and interfere with the true roll of balls on playing surfaces.

Twister Flow contains 24% of the carbamate insecticide Carbaryl and controls casting worms in turf grass. Available in a 5 litre pack, it is a flowable formulation giving fast, contact action on all turf surfaces, including fine or semi-fine turf, and remains active in the soil for up to two months.

Worm casts also encourage the spread of turf disease and the presence of high worm populations in fine turf is likely to attract moles — with even more devastating effect!

So if you have problems with worm casts in turf, choose Twister Flow. It could be a master stroke!



Twister-Flow

For further information call our HELPLINE (0277) 301114.

Rhône-Poulenc Environmental Products, Fyfield Road, Ongar, Essex CM5 0HW. Tel: 0277 301301 Fax: 0277 301119



talk to Tim Fell, who will be happy to guide you toward a better understanding of turf quality.

Watermation, the British irrigation company will be showing some exciting new developments, both in their sprinkler and controller ranges. These will include sprinklers with built in valves. which will provide greater programme flexibility with individual head control. Their new small controller is a completely new concept in programming and can be set conventionally or be detached from the wall and hand-held for remote programming. This feature is a 'first' in the industry, is expandable from 6-12 stations - and like all Watermation products it is 100% British in design and manufacture.

John Deere (stand C42-44/6 -63). A tournament-quality finish is provided by the new John Deere 3215 and 3235 lightweight fairway mowers. These 28 and 32hp machines feature twice as much power to the reels as competitive makes. With a maximum ground pressure of 10 psi, one touch lifting and lowering of the reversible 22in wide cutting units, a one-step mowing/transport lever, power steering and two-pedal ground speed foot control, these new mowers feature an unrivalled specification for fast, efficient mowing on fairways and approaches to greens. Height of cut can be adjusted from 3/8 upward, with hydraulically operated reels to follow ground contours. Both mowers are optionally available with four-wheel drive and fairway groomer and verticut attachments.

The "Greenkeeper Sprayer" is a new multi-purpose liquid applicator from Bowman Products Ltd. The machine is derived from the company's successful "Line Laser Electric" Line Marking Machine, used extensively by DSOs and contractors for sports surface markings.

It consists of a high pressure electric pump, driven from a 12v battery, which is capable of supplying a constant, even flow of mateial to up to six spray heads suspended from a boom arm at the front of the machine. Nozzle tips, positioning and spray pressure are all adjustable to suit the application rate. The machine utilises pneumatic tyres to avoid damage to soft surfaces, and after use handle bars can be folded to fit into the boots of a car. Uses include application of liquid feeds, green-ups, pesticides, wetting agents and soil conditioners. The Greenkeeper Sprayer will be on our stand at the IoG. Details: 0706 882291.

The market leading Professional "Express Dual" will be on show at the Atterton & Ellis stand. It offers state-of-the-art grinding for nearly every modern day motor triple and gang type unit in both in-situ and separate cylinder forms.

In the in-situ form, the grinding cycle takes place without the usual strip-down and when the mower requires a full service, the separate cylinder method provides the same efficient accurate grind of the cuting unit.

On show will also be the "Anglemaster", a bottom blade grinder suitable for blades up to 42in long, the FH1 "Fastcut" for blades up to 24in long and the "Pilot" plain cylinder grinding machine,

designed for the domestic market with cylinders up to 24in.

Details are available on stand 42/43 or from David Smith at Atterton & Ellis Ltd on 0440 702312.

Rhône-Poulenc Environmental Products will be exhibiting at the IoG Show and will be featuring their new 5L CDA Spasor, Freeway and Rovral Gren.

In addition for those looking for an accurate way of applying granular products, look no further. Come along to Stand B 70/71 and try the Rotaspin, an innovate new granule applicator which Rhône-Poulenc will be launching at the show. For all your questions on weeds, pests and diseases Rhône-Poulenc staff will be available to discuss your needs and help solve your difficulties in turf management.

On show for this first time this year at the Rufford Top Dress Supplies stand (Avenue PCS2, no. 7/8) is Fibermaster. It's a revolutionary way to greatly improve rootzone stability and is just launched after two years of highly successful trials by a turfgras scientist of international repute, Dr Bill Adams.

Fibermaster is a purpose made synthetic fibre which is mixed with Rufford Rootzone and is a proven alternative to standard rootzones. Suitbale for the following applications: golf tees, win-

pitches, sports racecourses, golf trolley walkways, embankments. building surounds (emergency access), overspill car park areas and grass verges.

Also new for 1993 is Super 1742, a topdressing with the majority of its particles falling within the medium sand band.

design and Simple sophisticated performance and build means you will notice the difference when you put other triple greensmowers alongside a Lesco, say Lockwood Grass Machinery. There is no fancy body panels to remove to carry out routine maintenance, so what you see is what you get - real value for money. There is a choice of diesel or petrol engines and a wheel drive three option is also available. See Lockwood Grass Machinery at the IoG Show or call them on 0473 289158.

Pattissons have examples of everything they can supply for golf course care and management on show, under cover in their new marquee. Latest equipment includes a new design of hole cup, the swivel flag pin and easy fit Velcro tie flag, attractive and colourful custom made tee signs and the very best of winter tee mats and mounting frames.

All Pattissions slaes staff will be on site - ask about the special show deals. See us on Stand E36/37 or call us on 0582 597262.

At last year's IoG Show, BLEC presented their award to their top UK dealer Powershift Ltd, Dundee. Who will win this year? See us at IOG to find out! Blec will be demonstrating a full range of landscaping and turfcare machinery, including Multiscrapers, Rotary Stonerakers, Stoneburiers, Seeding Machines, Pedestrian and Tractor Mounted and Overseeding machines, Fertiliser Spreaders, Turf Brush, Landscape/Beach Rakes plus a new range of landscaping equipment from Landpride. For more details call us on 0778 342829.

Modus T will be exhibiting their full range at the IoG Show. Of particular interest will be the 'Titan' range of deep aerators, including the new ballasted version. New for the '93/94 season and developed by Modus T's sister company FW Engineering (Developments) Ltd is the Cougar 3 outfront cylinder mower.

The superb TM1500 Greens/Fairway Aerator



- 1.5 metre coring width
- Variable spacing with a choice of tine sizes. Hollow or solid tine
- Productivity. 67,000 square feet per hour at 2.6MPH.
- Adjustable depth. Depth capacity to 5 inches.
- Durability. Rubust all steel welded frame

- No grease points. Fully sealed throughout.
- Fits your tractor. From 22HP gearbox or hydrostatic.

Aerators Ltd., 229 Higher Meadow, Clayton le Woods, Leyland, Lancs PR5 2RR. Tel: 0772 451959

For Ireland please contact: Redlough Landscape Equip-ment, Belgree, Mulhuddart, Dublin 15. Tel: 8207033/34

REF



Prize Competition – worth £600!

You could WIN your way to BTME '94, the star-spangled Exhibition and Education Seminar programme that's Number One in the industry!

Just answer this Big Question and keep your answer safe. In next month's magazine there'll be a final question and a form to fill in your carefully collected answers.

There are THREE BIG PRIZES to be won!

First prize: Return rail travel, three night's accommodation at a top hotel and entry into all the education seminar sessions. *Value: £300*.

Second prize: Return rail travel, two night's accommodation and entry to all seminar sessions. *Value:* £200.

Third prize: A single night's accommodation and entry to all seminar sessions. Value: £100.

1994 show already 'BIGGA' than 1993

ALMOST 100 exhibitors have already confirmed their stand spaces at BTME '94. However, the really interesting statistic to note at present is that with six months still to go before the event, more space has already been sold for '94 than was sold in total for 1993.

Visitors to the 1994 show will be visiting parts of Halls B and C never utilised before, with the real possibility of these halls being completely filled by next January – and particularly as the "flood" of bookings from new exhibitors to the event, reported in July's Update, shows no signs of abating. The seed company Mommersteeg is one of the latest

"new" exhibitors to secure a stand for themselves.

It's becoming increasingly obvious that more and more companies are recognising the importance of the BTME in the turf industry. Multicore Aerators Ltd have exhibited at BTME for the last two years as Ian Waddington, their managing director explains: "In 1994 we will be increasing the size of our stand due to the overwhelming response from all sectors of the industry. To Multicore Aerators Ltd this exhibition sets in motion the groundwork for future sales and ongoing growth for our company."

We will be announcing the VIP who will be opening the 1994 event shortly – so watch this space!

Stand space is becoming more limited all the time so if your company may be interested in exhibiting please contact Louise Lunn on 0347 838581 for more details and a BTME information pack.

THIS MONTH'S BIG QUESTION

* Who is the managing director of Multicore Aerators?

Keep your answer to this month's Big Question – and the ones from previous months – in a safe place. There'll be a final question next month, together with full details of where to send your entry.

Note: competition not open to BIGGA staff. No cash alternatives. Full entry details in Septembe 1993 edition of Greenkeeper International.

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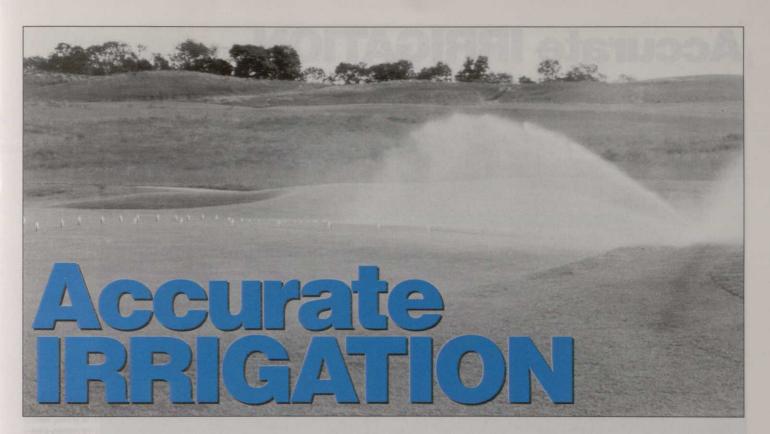
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Turf scientist COLIN SAINSBURY advocates an irrigation system which will put the thorny issue of water use well and truly in its place

rrigation is one of the more notorious subjects in greenkeeping literature, with the appearance every summer of a number of articles about irrigation equipment and maintenance, water quality and conservation and so on - all of which fail to

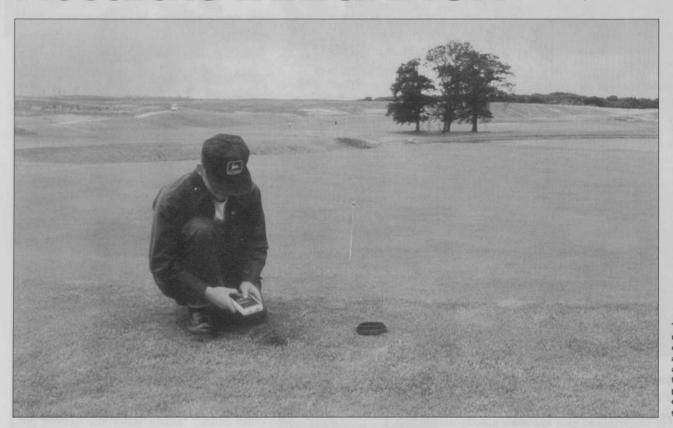
address the main concern of greenkeepers, namely how much water to apply and how often to apply it, otherwise called irrigation scheduling. Further, it seems to me that many commentators highlight overwatering as the source of numerous greenkeeping

problems, whilst failing to substantiate their views with provision of any concrete figures and/or water management programmes.

At the London Golf Club we have undertaken a programme of research that encompasses - 38



Accurate IRRIGATION



Taking readings, two or three times a week, with a meter, plus thermometer placed at 6" depth in the green

37 → sprinkler performance, water use and monitoring, storage and catchment management, all of which are designed to use the system as efficiently as possible whilst obtaining the best agronomic results.

Despite strong efforts at self regulation of standards through the BTLIA, it would appear to me that the irrigation industry still has problems in ensuring that system designs will translate into properly working systems in the field, by this I mean the evenness of coverage across the surface, regardless of the brand of product.

I think there are two reasons for this. The first is that far too much reliance is put on manufacturers' statements regarding sprinkler performance, tests which are conducted in enclosed rooms using single non-moving heads. In reality the application rates can be badly distorted, even on a night when the conditions approach dead calm (<3 MPH).

The second reason is that because of several underlying factors the cost of good irrigation systems are very expensive when compared with the USA and Australia. The result is that many clubs are forced to accept inferior systems which still require exten-

He all	GREENS	TEES	FAIRWAY	APPROACH	NIGHTLY
Original design estimate (mm)	4.0	3.0	2.5	3.0	1181m ³ (260,000 gallons)
Peak demand 23.06–08.07 (mm)	2.8	2.3	2.0	2.5	940m ³ (207,000 gallons)
Average May–June (mm)	1.7	1.2	1.0	1.2	479m ³ (106,000 gallons)

sive hand watering to make good the inadequacy of say a £50,000 green and tee system. As a clear case of this, on the installation at this course the club saved over £30,000 by purchasing the equivalent quantity of a higher class of pipe from the U.S., rather than using that which was available from suppliers in Britain.

At the London Golf Club we have established a programme that will determine the performance of the Rainbird heads presently installed, as well as testing other major brands under various windspeeds, pressures and

patterns of placement, this in order that we may be as well informed as possible about future purchases.

To monitor our water demand we use a simple weather station, the main elements of which are a home-made evaporation pan and soil thermometers. The use of the first is obvious, but the thermometer is also fairly useful because a moist soil will be roughly the same temperature as the air, whilst dry soils or excessively wet soils will be several degrees cooler.

To provide feedback on the

accuracy of our watering applications we have installed a gypsum resistance block (cost £8) into every green at a depth of 6"-7". Any resistance meter can then be used, with a little self calibration, to determine the range of readings, e.g. from dry to field capacity.

With this background work completed we have begun to use estimates of the percentage of evaporation from the pan to determine the sprinkler run times. After some initial over-watering, we had the best possible test of water demand during the hot, windy and dry period from 23 June–8 July, a period which was finally broken with 10mm of rain on 9 July.

To illustrate our water use, it is worth comparing the figures provided by the engineer (Rainbird Europe) in the design of our system, figures which I see as fairly typical of those provided by irrigation installers for use in southern and eastern England.

During the highest demand period we applied 44.8mm of water on the greens against a total measured evaporation of 106.3mm, a ratio of 0.42. We can confirm that this amount of water seemed sufficient because the greens continued to maintain

their colour and vigour, and the moisture cores gave consistent readings, showing that water was not accumulating. These particular greens are of a bent/fescue mix on a USGA rootzone mix. They have been established for nine months, with good root density observed at six to eight inches.

During the peak demand period mentioned the greens were cut three times per week at 6mm with the weight of cuttings averaging 22lbs/cut over 650m2 of green surface.

Looking at the table again, two other important issues are thrown into the spotlight. The estimated run time for our irrigation system to apply the engineer's demand figures is ten hours and this is similar to many green/tee and approach system run times in Britain. However, our highest demand figures would shave several hours off the irrigation cycle, resulting in more time being available for surface water to percolate to depth and thus reduce the risk of compaction from machinery as well as lowering the effect on play.

The other issue is obviously the amount of water used. The aver-



Close up of an evaporation par

age water use figures are less than half the estimated water use on which both our own and many other water storages are planned. This affects cost (and also the feasibility that projects can go ahead) because of this perceived limitation of water supply.

By next summer our greens should occupy the full depth of rootzone, i.e. 0.3m, though it remains to be seen how the lower demand of deep roots and lower cutting heights will be offset by the increase in water demand brought about by play.

Moreover we will see how well the turf stands up against a watering programme based on an application every third day, which is the practical compromise between the need to water long enough to re-charge the whole rootzone, whilst not leaving the surface too saturated.

The hot, dry periods of the past four years have confirmed my belief that no course is sustainable without an irrigation system, and it is timely then to suggest that the greenkeeping industry should really examine the issue of water use and finally put the sabre rattlers with their empty comments to rest.

I also believe that the skills requirement of greenkeepers should be further extended to include the installation, repair and operation of the sort of greens, tees and approach irrigation systems most common to British courses.

• The author, Australian turf scientist Colin Sainsbury, B.Sc., is responsible for the test laboratory facilities at the new Jack Nicklaus designed London



Installed: a moisture core in the green



Agronomist JIM ARTHUR gets back to basics in part two of his report on the benefits of grass identification

ast month we dealt with the triumvirate of those mainstays of good golf and good greenkeeping - bents, fescues and the meadow grasses. The latter, though less than ideal, is sadly the dominant grass on many of our older courses. Now we come to the rest - which it is helpful to identify if only to pin-point management or ecological problems.

Of course there are many more than three grass species found on golf greens, let alone fairways. There are also, however, some very undesirable species. Luckily, where they do occur, they are easy to identify, though less easy to eradicate. The first undesirable is perennial ryegrass (Lolium perenne). Its dark green leaves, with very shiny, polished, glossy, undersides and the red basal leaf sheaths, often (but confusingly not invariably) visible when the lower leaves are pulled back, makes identification easy. In passing, there are two other grasses with polished undersides to leaves and maroon basal leaf sheaths. These are the annual (biennial) Italian ryegrass and perennial meadow fescue (Festuca pratensis) - a tall 'arable' grass not the least bit like the small and wiry red fescues. Neither will bother you, since they are never found in close mown turf, though I did once find a practice ground growing a silage crop of meadow fescue, supplied by an agricultural seeds merchant as a bent/fescue mix!

Another grass, which can be confused with ryegrass, is crested dogstail (Cynosurus cristatus), again with stiff fibrous dark green leaves with very shiny undersides. The chief identification point is that the leaves come off at right angles to the stems and the leaf base is a deep golden yellow. Both these species, but especially dogstail, have such tough fibrous leaves that they are difficult to mow cleanly and often strip between blade and sole plate, leaving very characteristic skinned or shredded, discoloured, ragged-ended leaf blades. Dogstail and ryegrass incidentally are now less common 'contaminants' of golf greens, but on older courses, past overseeding or 'head' patching (even divotting) with ryegrass (because it was cheap) left a legacy of disaster. Walter Woods at St. Andrews has spent many years plugging and even returfing areas of the Old Course greens which were so contaminated in the 1920s and 30s, though such heinous practices have long since been stopped.

GRASS

Crested dogstail was sometimes included in fairway seeds mixtures but the difficulty in mowing and the resultant crop of wiry stems (whinnel straws) soon discouraged that idea.

There is, in fact, no place for ryegrass or dogstail on any golf course, certainly not greens or fairways. Yet on one course built recently, the inexperienced architect, having ploughed in the ryegrass-dominant grassland of the old farm land, sowed the new fairways with a ryegrass mixture! Will some architects and seedsmen never learn?

Claims made for the virtues of so called dwarf ryegrasses need to be treated with great caution. The problem in using ryegrass on tees is that one almost always ends up with tufty patches or individual plants of ryegrass contrasting with lower growing annual meadow grass growing between them.

Another grass which is often common and disfiguring but very easy to identify is Yorkshire fog (Holcus lanatus). This bleaches with frost, giving quite whitish patches in winter. The leaf sheaths are striped lengthways, mauve and pale green, and the leaves are very hairy and prostrate. It is this feature which makes it easy to control, as the plants picks up more than their fair share of selective weedkiller (or sulphate of iron) and so full strength herbicidal treatment will usually eliminate it - plus verticutting, which penalises the broad prostrate leaves more than it does bents and fescues. I have even found spot-treating patches with an aerosol herbicide spray very effective.

There are many other grasses, some with agricultural value such as the pale flat stemmed cocksfoot and others native to less fertile areas and moorland, which can be found on golf course fairways, while the rough can be a veritable grass museum. It will only confuse the beginner to try to cover all these species, though I would recommend an excellent Pan book of photographs of all the grasses by Roger Philips on Grasses, Ferns, Mosses and Lichens, which will help identification through flowering heads.

There are a few 'golf course' species, however, which can cause confusion. The first is early hair grass (Aira praecox). This is a very short lived ephemeral, seeding and then dying - very early even in March and surviving droughty summers as seed. It has fine needle leaves and many a greenkeeper has been misled into thinking that thin, droughted greens were filling in, in the autumn, with self-seeded fescues when the mass of fine leaved plantlets were in fact Aira praecox, doomed to set seed and die early the next year.

As a matter of interest, not all grasses survive summer stress or perpetuate themselves through seed. One of these is another short lived native of thin linksland in the south east, viz Poa bulbosa, which produces little bulbils at the base of the stems, and when the plant dies in drought the bulbils survive in dormancy until the autumn rains. Similarly, another

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rake in every bunker on every course.

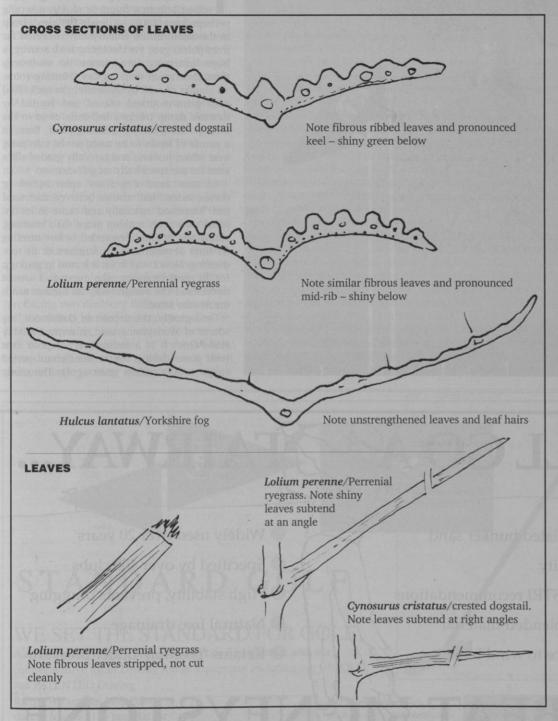
But there are rakes and rakes. Heavy steel (usually rusty), aluminium (often with broken teeth), even lumps of wood with a row of nails! Certainly few traditional rakes give members cause for pride in their club. Ours are different and very much better. Gleaming white 'RIGIDEX' heads which will never break. Even whiter tubular P.V.C. shafts for instant visibility and inherent flexibility. Topped with a comfortable one-handed grip. Guaranteed to improve any club's image. In accordance with R&A recommendations we no longer fit spikes as standard but they are available at modest extra cost.

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DENTIFICATION



viviparous fescue (F. vivipara) found on northern moorlands produces small spikelets, not seeds, and these drop off and grow when weather conditions are more favourable.

Another trap for the unwary is toad rush (Juncus bufonis) which occurs under wet conditions e.g. on thatchy greens, growing happily under the blades of the mower. It has fine, solid, not folded, cylindrical leaves and seriously affects putting surfaces

because of its slightly tussocky growth. Luckily, it can be sprayed out with full strength selectives, if caught early when it is growing and before it seeds.

Field woodrush (Luzula campestris) is perhaps less frequently seen, especially as today's closer mowing and regular verticutting, let alone grooming, will control it, but its very hairy, broad, tapering, brown-tinged leaves distinguish it fairly easily from grasses.

Sheep fescue deserves a mention – again very rarely found on greens but quite common on some thin acid approaches. Unlike creeping red fescues, it grows as individual plants – a whorled not a creeping habit – and so produces a thin open turf, not acceptable by today's standards.

We might also mention tip shooting of Agrostis – under wet conditions (often it is an early indication of over-watering), small individual plantlets are produced, probably as an alternative to trying to produce seed heads. These can be easily detached from the parent plant – and easily verticut out when small – but the spotted effect is as bad for appearance as it is for putting.

It is to be hoped that while all greenkeepers should know their basic grasses, some may be enthused enough to go grass hunting – at least the plants stay still to aid identification (which is more than one can say for rare birds).

It is worth noting however that there are very few natural monocultural stands i.e. single species, as opposed to sown turf - and even if you start with only one or two species, others soon come in. So long as they have comparable growth habits to our native fine fescues and bents, this does not really matter. Perhaps one could 'age' golf greens in the same way as one can estimate the age of a hedge, one species for every hundred years approximately, according to one authority. Certainly some years ago when I carried out a botanical survey of the Old Course greens at St. Andrews, I identified no less than seventeen different species or sub-species. Of course, management, good as well as bad, can encourage some and kill off others, and there is something to be said for not having all your eggs in one basket!

The situation is quite different where grass is grown 'artificially' - e.g. hydroponically-fed, sandonly greens in very hot arid climates - where nature has no say and ultra-severe climatic conditions restrain weed grasses (but not diseases!) from invading. Not much Poa annua in the Arizona desert! Here, whatever man proposes, the weather has the last word - shared perhaps with the golfer who is putting fine turf under extreme stress all the year round and often pushing desirable species up to and beyond their capacity to withstand the effects of constant traffic and constantly changing weather. It is no coincidence that in nature, without help from man, the first stage in such stressful conditions is for Poa annua to replace bents and fescues (e.g. on paths) and then for it to be scrubbed off, leaving bare ground.



DAVID WHITE discovers that sand for the golf course doesn't just 'happen' - and like everything else, you tend to get what you pay for

To the layman it appears as though taken directly from a futuristic movie, a setting perhaps from '2001 – A Space Odyssey'. Deep in the Staffordshire countryside, sheltered far from public gaze yet throbbing with activity, a huge quarrying programme is underway throughout each working day, blasting colossal chunks of rock by dynamite, the rock lifted with giant-mouthed cranes and hauled by monster dump trucks a half mile or so to the Moneystone Quarry processing plant, there in a matter of hours to be transformed into pure, near white, luscious and carefully graded silica sand for use specifically on golf courses.

I'd seen sand dug from open seams or dunes, indeed had always believed that sand just 'happened' naturally and came in its finished state with nothing more than washing, sifting and grading demanded before meeting its final destination – in bunkers or as top-dressing. Now I was in for a lesson in geology, for by understanding the process I would understand the reasons why all bunker sands are not the same.

Geologically, the deposit at Oakamoor, the source of Moneystone sand, is termed a 'Millstone Grit'. It is a sedimentary deposit that took place during the carboniferous period (approx. 300 million years ago!). The sandy

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A lesson in geology

deposit consolidated into a rock and eventually, through land movement and upheaval, the deposit 'resurfaced' at its present location.

Once the whereabouts of the deposit was determined (outcrops of rock provided the evidence) an exploratory evaluation of the site was performed using a drilling rig to provide core samples of the deposit.

After proving that the deposit was economically viable for extraction, Hepworth Minerals applied for planning permission, it was granted, and the plant was built in 1960.

How then do lumps of rock the size of a motor car come to be transformed into closely graded particles that resist compaction regardless of heavy feet, particles that are less likely to be blown away in windy conditions than fine sand? To begin, the overburden or topsoil is removed to expose the red sandstone deposit. Blasting then takes place to establish the quarry face, followed by continuous explosions which provide the rock feed to the plant.

Currently, such blasting occurs at two levels (producing two distinctly different rock types) and this then is blended and transported to the primary crushing plant, which reduces the rock to a size transportable by conveyor belt. Once through the crusher, which is a noisy and ominous looking machine that defies

description, the rock is conveyed to a stockpile. It is then fed at a constant rate to a secondary crushing and washing plant where further size reduction takes place.

Attrition (grinding down by friction), followed by washing with water are processes used to remove the clay, silt and fine sand. Heavy mineral residues (e.g. chromite) are extracted by centrifugal action and the remaining classified sand is de-watered before progressing to a hot acid leaching plant. This hot acid process removes the surface iron (the rock begins life with a reddish brown tint) and the sand takes on its familiar white colour.

Further washing removes all traces of acid and the sand is then pumped to a screening plant, which grades it into hoppers. A final control procedure then dictates whether it can be moved to the stockpile or if further reprocessing is needed.

Not all sand produced at Moneystone is destined for use on golf courses, though it is a safe bet to say that a large percentage is produced specifically for Hepworth's authorised distributors, Martin Bros., with golf in mind with such ideal characteristics, this is not surprising. What then are these characteristics?

The grain size lies mainly between 0.125mm and 1.0mm, a size which satisfies the recommendations as a bunker sand for inland courses and complies with the acceptable limits as defined by the STRI. Grain shape is angular, thus providing a good 'lie' and a stable firm surface which prevents 'plugging' whilst providing a good stacking angle at the bunker face - in addition, the sand has excellent resistance to windblow. Free from 'fines' the sand provides good natural free drainage which prevents 'ponding'. Always an added attraction, it has a light colour which highlights green surrounds, making the bunker visible from a distance. Finally, an important point, the sand has no shell or free lime content and will not contribute to turf disease when splashed from the bunker onto playing

If there was a lesson to be learned from my visit to Oakamoor, it was that all bunkers sands are certainly not the same - one has only to look at some of the awful stuff used because it just happened to be cheap to realise that in sand selection, just in every other facet of good greenkeeping husbandry, you pays your money and takes your choice. The wise greenkeeper should take into consideration the consistency he seeks at his particular location, weigh the pro's and con's carefully, and remember always that there is no substitute for quality!



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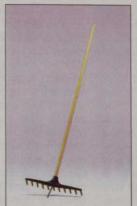
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Complete rake w/Yellow Wood Handle: £4.61 each plus VAT in packs of 12

HOW AN ADVISOR CAN

reconceived ideas are often held about golf course agronomists. To dispel some of the popular misconceptions, STRI golf course consultants are not substitute greenkeepers (the day to day running of the course, we believe, should be left firmly in the hands of the head greenkeeper or course manager), nor they simply idealistic botanists, but provide a realistic approach to course management and tailor recommendations to of requirements individual courses.

The first approach to the STRI from a golf club is either in response to a short term problem or when there has been progressive deterioration in playing surfaces. The solution may be quite simple but the remedy can be complex and involve a long term prescription, therefore early advice should be sought. Thorough analysis of turf and sub-surface conditions may also reveal potential problems for the future unless pro-active management strategies are adopted which do not simply paper over the cracks. Under these circumstances the primary role of the agronomist is one of co-ordinator, ensuring that all elements of management are in place to sustain the required level of improvement.

Lack of continuity between green committees can severely hamper progress, as long term objectives become obscured or over-ridden in the interests of leaving a mark in the short term. Committees are essentially made up of golfers of a range of proficiency, drawn from various professional backgrounds. They cannot be fully versed in all the subtleties of golf course management and there may be friction with green staff when green committee members assume the role of course manager. While enlightened, streamlined committees do exist, pressures to preserve artificially lush, green, so-called holding, playing surfaces may be too great to resist despite the inevitable consequences of atrocious winter golf, prolonged use of temporary greens and excessive fertiliser/fungicide bills. To prevent this, clear direction is required from an agronomist who has no commercial axe to grind, one who can assess the situation



an unbiased assessment to realise a golf course's potential, reports **JONATHAN TUCKER**

objectively without being drawn into club politics.

Ideally, clubs need to formulate their own golf course policy document to avoid the constant changing of priorities and management direction which can often accompany new green committee personnel. The agronomist has an important input into the document, identifying roles and responsibilities, formulating policies and principles which must be kept in place to achieve stated objectives, and prescribing resource needs (manpower, materials and machinery). Construction projects must be phased according to priority, perhaps several years. agronomist can identify the best materials and methods for individual projects, thereby avoiding expensive failures and increased course disruption.

Education is a fundamental issue and the agronomist can convev the essential messages via the green committee or to a wider audience at an open forum. Course inspections are followed up with a detailed report and this acts as a powerful 'selling document' as well as informing the membership of progress and future demands of course maintenance. This information is invaluable for diffusing some of the resistance to potentially disruptive operations, supporting the committee's long term aims and minimising the risk of creeping complacency.

Frequency of course inspections can be modified to the requirements of individual clubs. Annual inspections may well be adequate when the management structure is sound and progress is assured,

but there is also the option of biannual or possibly quarterly visits to monitor the situation more closely and to help and support the green staff. The STRI's golf course consultancy team can advise on all aspects of turf management, including basic agronomy and course management, land drainage, construction projects, architecture and design, staffing, mechanisation, etc. Ecology and conservation management is now an integral part of many golf courses to enhance both playing interest and aesthetic qualities. This service should not be confused with those misguided preservationists who regard all trees as sacrosanct, even when misplaced or totally

Efficiency is often the key to successful course management, particularly against the background of greater expectations for satisfactory playing surfaces year round, allied to the inexorable increase in demand. Green staff lumbered with antiquated, ineffective equipment and poorly housed in dilapidated buildings cannot hope to perform effectively and motivation can be quickly eroded. Therefore, assessment of the resources allocated to course management comes under the critical eye of the agronomist. If there are any weak links, these will be immediately identified and appropriate recommendations

The essential principles of greenkeeping have remained unchanged since the turn of the century, though innovations and equipment are constantly being introduced which may well assist the green staff. Gimmicks can be quickly weeded out by the experienced agronomist and common mistakes avoided. Furthermore, greenkeepers often have excellent ideas and I would make no apologies for relating these to other golf clubs where they are applica-

One of the strengths of the STRI is its laboratory facilities, which encompass the disciplines of chemistry, biology and soil physics. Golf courses are in a constant state of flux - the final arbitrator often being weather. Turf diseases develop rapidly and the golf course manager must therefore react quickly. The biology laboratory at the STRI provides information on disease identity and advice on suitable fungicides for treatment (in addition to sound cultural practices) as part of an integrated control strategy.

Chemical analysis of soil is useful as a back-up to visual assessment of turf condition. Contrary to the belief held in some quarters, it is not employed alone for the purpose of justifying phosphate or potassium input but to assess underlying trends. Where there are no perceptible adverse effects on the desirable turfgrasses/playing surface qualities, even from low levels of phosphate or potash, then application of these nutrients is not recommended by the STRI.

The fescue/bent grasses (which we aim to nurture) can thrive over a wide range of acidity/alkalinity from acid moorland to alkaline links. But pH analysis in the laboratory can expose fluctuations and if necessary adjustments made by the use of acidifying or alkaline materials.

Procedure for pH testing and nutrient analysis may vary from laboratory to laboratory, therefore the over-riding consideration is to carry out these tests under consistent conditions so that comparisons can be made with confidence over time.

Elements such as copper, zinc, manganese, nickel and cadmium can pose toxicity problems if present at high concentration, therefore analysis will pin-point these toxic elements in contaminated soils. Salt damage is a potential threat on coastal sites and although some turfgrasses have a greater tolerance than others, prolonged exposure and sudden inundation with sea-water will cause turf loss. Tests for the concentration of salt, which rely on measurement of electrical conductivity in a representative soil extract, will help to indicate when it is safe to overseed.

Physical analysis of soils is particularly important in relation to new constructions or possibly when vetting top dressing materials for suitability. For new golf greens certain design criteria need to be satisfied, therefore the proportion of sand to silt and clay (i.e. texture) can be ascertained by particle size analysis. The soil

HELP

material is first dispersed before passing the liquid through sieves of varying mesh size. The silt and clay fractions not retained by the sieves are measured separately by mixing with water and measuring the quantities which have settled after a set time. The organic matter content of the soil is determined by igniting a soil sample and measuring the loss in weight.

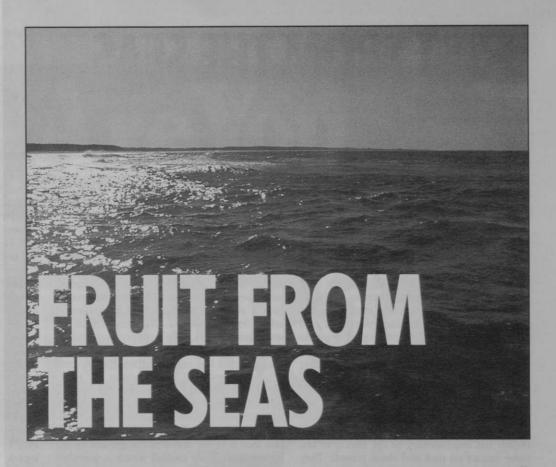
Sands can be tested to assess their compatibility with the soil and to derive a suitable mixing ratio. Hydraulic conductivity tests will provide some indication of the performance of the rootzone mixture in the field. Measurements are made by determining the rate at which water descends through a column of soil.

Again, physical testing of this nature is not intended as a substitute for the hand and eye of the agronomist, but it does provide objective information to support initial impressions.

New tee and green constructions can fail simply because an inappropriate turf is employed. For minor projects, samples of turf can be examined at the STRI or the golf club, but for larger construction projects (e.g. new golf courses) examination of the mature, cultivated turf at point of harvest will facilitate quality control. Where seeding is the preferred option for establishment purposes, the extensive cultivar testing programme at the Institute evaluates the suitability of different cultivars for specific purposes. The ranking of these cultivars enables choices to be made based on which criteria are most important.

In summary, the role of the STRI golf course agronomist is to provide a totally unbiased, objective assessment of all the conditions needed to realise the potential of the golf course. His support of the green staff should be unquestioned and if necessary the frequency of visits can be adjusted to meet the demands of particular courses. Unfortunately, there are no quick fixes in golf course management, therefore I would urge golf clubs to establish sound policies from the outset rather than accepting sub-standard golf for six months of the year!

 The author, Jonathan Tucker, is a consultant agronomist with the STRI.



It's time to unravel the mysteries surrounding 'stimulating seawed,' reckons MIKE SAULL

Seaweed extracts have long been labelled as 'muck and mystery' products. And up until recently, greenkeepers fell into one of two categories – enthusiastic disciples or downright sceptics. Now though, the tide has changed, and far from being left washed up on the shoreline, extracts are being added into spray programmes on an increasing number of courses.

So what has brought about the change of heart and the increasing number of converts? Well, it appears as if some manufacturers are now able to back their claims with positive independent research. Furthermore, seaweed extracts suit the growing move away from completely inorganic based fertiliser programmes. Finally with increased pressure on turf from drought and numbers of golfers, greenkeepers recognise they need a fundamental rethink of how sprays can manipulate grass growth and in particular rooting. Seaweed extracts in their view are useful plant growth stimulants and not necessarily fertilisers. The move however is made at a time when scientists remain divided over the potential role of seaweed extracts on turf.

Most seaweed extracts (and for that matter granular meals) are derived from marine brown algae, usually Ascophyllum nodosum. The foliar applied products available are either true extracts or suspensions of finely divided algae. For example, Maxicrop, SM3, Marinure and Seamac, are produced by either a water extraction or by use of an aqueous alkali hydrolysis process. Others such as Kelpak and Goemar are suspensions.

There is a growing number who feel that the organic component of seaweed extracts is having a very real positive effect on stimulating plant growth. This is separate from and in addition to the valuable effects of added fertilisers in seaweed mixes. Claims surrounding the use of this base material include better rooting and tillering,

increased resistance to stress conditions, reduced incidence of fungal attack and improved seed germination.

In the past it was felt that the effects of this seaweed extract could be explained by the content of trace elements. However, the quantities of dissolved solids in unformulated extracts that would be applied annually to turf are very small, and researchers have now shown that the trace elements present in seaweed extracts form an insignificant proportion of annual turf requirements.

Because of the small amount of material applied per hectare, the substances in seaweed which produce the beneficial results must be active at very low concentrations. Now, scientists at two of the UK's leading fundamental research centres are homing in on the organic constituents of the one major extract. "Cytokinins are growth stimulants naturally produced at the growing tips of plants," says Prof Gerald Blunden at the University of Portsmouth. "Amongst other activities, they can stimulate cell division and photosynthesis."

Evidence suggests that these compounds can increase major plant nutrient uptake with reports of increases in nitrogen, phosphorous, potassium, calcium, manganese, magnesium, iron and zinc being cited in the literature.

Many researchers have noted cytokinin-like activity when seaweed extracts have been applied in field trials. However, it seems likely that other compounds will also have a role to play. Because of the differences in cytokinin levels recorded for the same seaweed extract using different bioassay procedures, it could be that the extracts might contain other compounds which behave like cytokinins.

Betaines are one possible group of compounds and Ascophyllum is known to yield two → 46

FRUIT FROM THE SEAS

45 → different types. They are found within the plant cell and active over the growing season.

The Portsmouth University researchers claim to have made a major breakthrough which confirms the cytokinin like effect of the betaines in certain circumstances. They found that low concentrations of betaines can increase plant chlorophyll by up to 400%. In field conditions this could mean quicker growth and greener looking plants. "It also probably explains why greenkeepers report a greening of grass after spraying extracts. This is a very major advance in our understanding of how extracts can work, though not all extracts are likely to work in the same way," says Prof Blunden.

At the University College of Wales, the research team led by Dr John Norrington-Davies has been looking at the effects of the same extract on root and shoot growth. They have now been able to confirm the effects first recorded on barley in experiments with ryegrass. In a controlled hydroponic environment, the researchers found that commercial rates of the base extract trebled the weight of grass roots over the five week duration of the experiment. In addition, the grass produced 50% more leaf area, while shoot dry weight increased by nearly 200%. Even at low concentrations - 1.0ml/litre, the extract improved tillering after just two weeks - an effect which lasted right throughout the experiment.

The research workers are now trying to isolate the various organic compounds found within the extract to determine what their specific role is on plant growth. "We do need further research before we can be more specific" says Dr John Norrington-Davies. "But it appears as if cytokinins are the most likely key to responses seen. However, they are unlikely to be capable of producing the full responses seen in the field and other compounds such as betaines could also be important. There is an increasing body of information available to show that the use of extracts is beneficial, even though the reasons for the responses are not fully understood," claims Dr Norrington-Davies.

Prof Blunden sends out one word of warning though. "Too frequently, results reported with one product are assumed to apply equally to another even though they may be manufactured in different ways, from different seaweed types, contain different components and are applied in different concentrations. Users should make sure they are convinced that the products they select live up to the manufacturers claims."

One manufacturer claims that the greatest benefit from its products come from their high alginate content. It thus markets its own extracts as soil conditioners. With around five times more alginate than some other products on the market, the company feels that such a compound is the valuable active component. They suggest that it works by helping to increase soil microbiological activity-and improve soil structure and moisture retention.

Dr David Lawson, chemist at the Sports Turf Research Institute, echoes Prof Blunden's warnings. "We've not carried out research on the use of pure seaweed extracts and I'm not aware of any independent work on the products specifically on turf. We have however looked at seaweed extract/cow manure mixes which have produced conflicting effects on grass species mix. The product appeared to increase the fescue content of the turf. However under a low cut height regime, the converse happened. If the products do effect rooting, then does this have an effect on the turf? They also tend to be applied in hot weather and maybe the water is having a beneficial effect. Between the two, I would speculate that it is the seaweed component of the products we have trialled which is probably more beneficial, but it is too early yet to be more specific."

Professor Gerald
Blunden: 'Too
frequently results
reported with one
product are assumed
to apply equally to
another'



At present around 25-30% of the 600 or so Scottish greenkeepers on the books of Edinburgh based Sports Turf Services use seaweed extract on a regular basis. However the company's NE area manager, Mike Dennis confirms that the number of converts is rapidly increasing. "Until recently, greenkeepers have been keen to use inorganics. Now though, we have turned full circle and there is a move back to naturally based organic type products. Many greenkeepers have made the change simply because they feel that the continued use of inorganic fertilisers is perhaps not giving them the best results. Others feel the need to try other products despite the fact that the scientists cannot be more conclusive at present. If organics were more competitively priced, a lot more would make the change," he

Seaweed extracts however are a special case. Mr Dennis sees them being used in conjunction with granular or powder fertilisers as a way of feeding grasses and kick-starting turf growth. They are not necessarily fertilisers and most greenkeepers now recognise and appreciate their use as plant growth stimulants.

"In early springs, it is a waste of time using

granular products as any lush early growth is soon killed-off. Here a high iron content seaweed extract can be used to give good early presentation to the greens without producing lush growth. In years when spring arrives late, the product can give us some breathing space without force feeding the stressed turf. Similar approaches can be used at the end of the season to harden-off grasses and perhaps discourage disease. Here it is pointless using more nitrogen just to produce lush, but weak, growth. With most golfers now accustomed to beautifully presented greens, high iron products are also being increasingly used prior to tournaments. The effects can usually be seen within 24 hours and they can last for six weeks or more," says Mike Dennis, continuing, "in this respect high iron type products can hide a multitude of sins, but they cannot be considered a replacement for a proper programme of inputs. They are not long term products and should not be used as such." The other major use for extracts is on newly sown greens - here basic formulations with limited additional NPK should be used to help tillering and increase shoot density. Applications every six weeks can have a dramatic effect.

"The aim on reseeds is to give grass its feet." he says. "It is pointless applying heavy doses of fertiliser at this time because the turf won't use it. You wouldn't give solids to a baby, because it couldn't cope with the food. So, why try to force feed new grass with something it can't utilise efficiently? We have seen treated greens that are much better able to cope with drought stress than unsprayed areas on the same course, and this is probably a function of the improved root growth that extracts produce. This drought resistance characteristic lasts for some years, preventing summer discolouration of greens.

The seaweed extract appears to keep grass green for longer periods and helps retain moisture in the leaf. Where greens look run-down, our first approach is to check soil and leaf tissue for potash and magnesium, but extracts can also have a role to play. Formulated products can be used to replace dry fertilisers and with three recent years where drought has been a major threat, we are much more conscious of the role foliar acting liquids can play. And if budgets allow, they make a lot of sense. A number of greenkeepers are now mixing seaweed extract with liquid organics feeds, thus making their own fertiliser cocktail that includes the beneficial effects of seaweed."

"I feel that seaweeds put a lot of natural goodness back into the soil." he continued, "and despite the fact that we do not yet know what the active ingredients are, extracts are rapidly becoming a regular component of our green and tee management programmes."

● The author, Mike Saull MSc., is past technical secretary of the Soil and Water Management Association. He is also a soil scientist and now runs his own PR business – Landline PR – based in Shrewsbury.

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Around the Green

Keeping in touch with news and comment from the regions

NORTH WEST

June is drawing to an end as I write and the rainy season appears to have finally come to an end. I must admit that this month I am struggling to find something to report, as there seems to be very little happening in the North West. One date for your diary, however, is 25 August, when we have a visit to the GEM fertilizer works at Accrington. Unfortunately we are restricted to just 30 members, so it will have to be a case of first come, first served.

At the regional final of the Hayter Challenge Tournament at Worksop our section had only one qualifier make it forward to the grand final – Chris Hulme. We all wish Chris the best of luck in 'the big one'.

That seems to be it for now, though I am looking forward to The Open and then a few



days at the National Tournament, where I hope to meet many section members and renew old aquaintances. Any news or views, please contact me on 051 724 5412.

BERT CROSS

SCOTTISH REGION

The Scottish Region National Tournament was held at Brunston Castle GC, Ayrshire, on 22 June, staged on a new course which has been open for only one year, though every player was fulsome in their praise for its condition. Congratulations and thanks to Gordon Heron and his staff and also to George and Anna Ferguson and their clubhouse staff for their kindness and hospitality - especially the catering organisation, who did wonders despite limited catering facilities. Our special thanks also to Mr Bob Low, owner of Brunston Castle, for his kindness in granting us courtesy of the course. Although he could not be with us in person he did not forget us and a 'phone call from Belgium came to wish us well - and to offer everyone in the club a drink, which added the final flourish to a great tournament and a fine course, one that will become even better as the years progress. Our best wishes, then, to everyone at Brunston Castle for every success in the

were players, and as will be seen by the scores, they found it a very tough course indeed. As usual, competitors were far flung, from Tain in the north to Goswick in the south (or should I say north of England?). Some people, including our intrepid editor, had a slow journey but still they come back – year after year. In mentioning the editor, does he realise that nearly every bad score was put down to the appearance of his camera on the 17th tee? Well, someone has to take the blame!

It was a bonus for us that BIGGA chairman John Crawford was with us to present the trophies, and it was nice also to see young Gordon Irving back in the promised land – popping along to see some old friends. A special thanks to Jim Paton, Willie Blair and Jimmy Neilson for their assistance – we worked Jim Paton so

hard that the poor fellow wasn't fit enough to walk round the course and was forced to take a buggy (auld age disnae come itsel' Jim), – nice drive at the first, though!

ELLIOTT SMALL

• The full results of the Scottish Championship appear on Page 7, together with photographs of the major trophy winners – editor.

KENT

Not much to report this time around, except perhaps to remind you of some of our events later in the year. Perhaps the most important will be our hosting of the Regional Seminar at Hadlow College on 27 October. The topic for our half dozen expert speakers will be the implications and practicalities of golf 365 days a year. The final line-up of speakers has yet to be finalised, but we intend to make it a topical, interesting, educational, and perhaps even stimulating day of discussion for greenkeepers, secretaries and golf club officials.

On the golfing front we have our Autumn Tournament at Langley Park on 15 September. Also to be pencilled in is our Christmas Turkey Trot, which may be staged at Darenth Valley.

At least one definite piece of news is that Andy Johnson, head man at Sene Valley, is once again a married man. This report will undoubtedly appear some time after the ceremony in May, so I deliberately omit the word 'happily'. Only kidding, of course, for where would we greenkeepers be without 'er indoors'? I have found they can also come in very handy as makeshift green staff and I remember a couple of years ago (at seven months pregnant) my wife was painting tee markers in the shed. I also know of one head greenkeeper who was known to send his wife out to switch the dew from the greens and move the tee markers at weekends - unpaid or course - when he was short of staff to cover! She was also a dab hand at bunker raking. Well, there we are Andy, a few useful tips for a happy and fruitful marriage. Oh yes, and when she has finished those



chores out on the course don't forget she has also to wash your overalls and make the dinner. I think I had better shut up now, in case my wife reads this!

PAUL COPSEY

SOUTH EAST REGION



Bill Francis

Bright sunshine together with a refreshing north easterly breeze greeted the competitors of the South East region on 29 June, bent on qualifying to represent the region in the Hayter Challenge Tournament finals to be staged at Sand Moor in September. For this regional qualifier we were fortunate in having the new Weald of Kent

course at our disposal, and after a filling buffet lunch the competitors set out to try and master the terrain, truly in excellent condition when one considers that it has been open for just one year.

Thanks must be extended to John Millen for helping to arrange the tournament; and to all the staff at Weald of Kent for their unfailing courtesy and professionalism. Thanks also to Hayters plc for their help and generous sponsorship of the day, which must be voted a great success.

RESULTS 0-9 handicap 1st W Francis 76-5=71. 2nd H Morgan 80-8=72. 3rd M Smith 78-5=73 (countback). Reserve M Sherris 80-7=73. 10-18 handicap 1st P Preston 87-18=69. 2nd G Kyle 81-10=71 (countback). 3rd D Keen 83-12=71. Reserve C Reed 83-10=73. 19-28 Handicap 1st J Roberts 94-24=70 (countback) 2nd C Forde 90-20=70. 3rd S Millard 90-19=71. Reserve D Sullivan 96-24=72.

Good fortune to all qualifiers at the National Finals at Sand Moor.

DAVID WOOD

SOUTH WALES

The Hayter Challenge regional final held at Clevedon GC on 8 June was played on a glorious day, the weather being warm and wind free, in fact perfect golfing weather. Before the competition I rather fancied our chances, as some good scores had been registered at section monthly meetings and most of the lads were playing consistently well. So what went wrong? The only player from our section to qualify for the final was Laurence Walter of Wenvoe Castle GC. Two other competitors came away with something: 'yours truly' as mug of category two and Philip Huish as mug of category three! Just in case he forgets to mention it in his column, Richard Whyman (Devon & Cornwall) won the mug of category one! Our thanks to Hayters, especially Kim Macfie and Robin Boyes, for their splendid support and for presenting a magnificent prize table, also to all at Clevedon GC for their hospitality and to Barry Reeves and his staff for course presentation. Last but not least, our thanks to Marion and Gordon Child for their hard work and splendid organisation.

Dennis Archer is recovering from an operation in which he has had a leg amputated and I'm sure everyone will join with me in wishing Dennis the very best of good luck. Our thoughts are with you Dennis, and we all hope that everything turns out well.

Andrew Jenkins has yet to open the bottle of bubbly he won in Westurf, for he is (or was, at



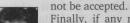
the time of writing) still waiting to become a father. Any news for the summer newsletter will be greatly appreciated. Contact me on 0792 233923.

PETER LACEY

NORTH WALES

June has been a quiet month in North Wales, so there is little to report save that of Chris Davies (Abergele GC) moving house. All the staff wish him well in his new home and Chris, don't forget your socks, the new owners will not want to pay for a fumigation expert to clear them up!

Dates for your diary: on 29 or 30 September (if enough people show interest), a coach will be travelling to the Haydock Park Show. If you are interested please contact either Terry Adamson or me. On 6 October our Autumn Golf Tournament will be held at Pwllheli GC. When the entry forms come out make sure they are sent back A.S.A.P., along with the entrance fee, as forms returned after the closing date will



Finally, if any members are interested in attending a first aid course at Northop College during the winter, please contact me.

DAVID PROCTOR



Our Presidents Day Tournament was held at South Leeds GC on 10 June, by kind permission of the management committee. The course was in fine condition, reflecting all the hard work put in by Graham Hope and his staff. Thanks must also go to Mr. Terry Hughes, Captain of the Rabbits, for presenting the prizes, and to the bar and catering staff for an admirable job.

The results:- Division 1 - Jubilee Cup D. Spurden, 1st S. Midgley, 2nd D. Collins, 3rd R. Johnson. Division 2 - 1st G. Hope, 2nd A. Smith, 3rd L. Kirkbright.

Our grateful thanks - as always- go to our president, Bill Mountain, (who by the way is in his 33rd year of office) for putting on such a splendid prize table, and last but not least our thanks to our friend Mel Guy for being the president's right hand man on the day, arranging all the score cards etc. Everyone had a grand time.

The Invitation Day at Pannal GC on 17 August is fully booked and no further entries can be taken. There are, however, still a few places for the Autumn Tournament at Kirkbymoorside GC on 6 October. Any member wish-



ing to book should send a deposit of £10 to me at 49 Cornwall Road, Bingley, W Yorks. BD16 4RL, or call me on 0274 568128 for further details. PAT MURPHY

DEVON & CORNWALL

With the sun shining for the first time in weeks, our sectional qualifiers travelled to the Hayter Challenge regional final held at Clevedon GC on Tuesday 8 June. The Hayter agents for the section, Devon Garden Machinery and Hennings Ltd., kindly sponsored mini bus travel to the final and Alan Dommett of DGM drove the Devon qualifiers, though Martin Hennings unfortunately was unable to attend, due to his company's involvement with the Cornwall County show, which started only days later. With this, the Cornish qualifiers nominated Dick Parr to drive their bus and though perhaps it would be better to draw a veil over the trip, I understand that many now regard it as the journey of a lifetime! As to the event, our qualifiers had both good and bad fortune, with 'yours truly' collecting the mug of the category, although I wasn't the only section secretary so to do.

Our congratulations to Lauchlan Millar, who returned a nett 69 to win the 0-9 category, also to Brian Ridgeway (73) & Neil Macintyre (72) in finishing third in their categories - we wish them well in the National final. With the help of these players the section won the team prize for the second time in three years, so congratulations are in order to all team members who took part. In closing, I would like to thank Hayters for sponsoring this superb event, also



Gordon & Marion Child, who as usual ran the day so smoothly. RICHARD WHYMAN

CLEVELAND

Two of our members have qualified for the Hayter Challenge final at Sand Moor GC, Graham Pyle and Chris Powley - congratulations and good luck to them.

Whilst driving a Greens King on a gravel path, Ian Holloran found two golfers blocking his path and he was forced to brake hard. As he was on a side-sloping path he slid broadside into a beck, causing minor damage to the machine. Fortunately he was unhurt.

On heavy land, temporary winter greens offer the advantage of protecting normal greens during the worst of winter, so that from springtime onward the finer grasses are in better condition and are better able to provide good putting surfaces. It is important at this time of year to make provisions to harden off the greens and have stocks of fungicide available in case of fungal attack. Scarifying, aerating and drying off by reducing irrigation application during September will help enormously.

The new course at Yafforth, Northallerton, opened in July, whilst the new course at Brotton, near Saltburn, according to head greenkeeper Brian Hall, is now fully operational and 'doing well'. Darlington Borough Council's course at Stressholme is to add an ambitious driving range to complement the popular 18

hole course, whilst Jim Webster (head greenkeeper) advises that he is busy setting up a nine hole course, complete with driving range, at the Hallgarth Hotel complex near Darlington. BRUCE BURNELL



LONDON

Congratulations to Pat and Tina Swinn on the recent arrival of their new son, Sean Francis. We wish them all the best and hope they don't have too many sleepless nights. Congratulations are also in order following the triumphant win of Doug Smith and John Jackson at the recent guest day event held at Thorpe Hall GC. Although staged on Doug's home territory, this win amongst the members must surely be all the more satisfying, whilst the rock solid performance of John, as always, was impressive.

The summer league is progressing towards an interesting climax and the final rounds certainly promise to be entertaining. I will keep readers informed when the final stage results come to hand. The winter seminar venue has been decided, with Oaklands College kindly offering



us some dates in early December. A programme is currently being drawn up. Keep the news coming in, all ideas are welcome. Don't hesitate to call me on 081 959 5629. TONY DUNSTAN

SURREY

The sun always seems to shine on Cresta Cup day and this year was no exception as players sweltered on the course at West Surrey GC. Despite the heat Simon Kirkham returned a remarkable score of 41 Stableford points off a handicap of eight. RESULTS: !st D Kirkham 41. 2nd D Sullivan 40. 3rd G Holland 38. Trade 1st D Wall 34.

Thanks went to the club for allowing us courtesy of the course and to Mike Kirkham and his staff for the good playing conditions. Other people deserving of mention are chairman Terry Huntly and secretary Derek Walder who, I know, spend much of their own time organising our golf days - always well run, enjoyable events. With this in mind, I would again like to tackle the old problem of late entries......and if you are getting fed up with reading about this matter them maybe it is starting to sink in!

Every member has received entry forms for our next three events, forms which clearly indicate the closing date for entries. Therefore, Derek should not have to cope with 'phone calls two or three days prior to golf days from members who want to play. Forthcoming golf fixtures are the McMillan Tankard at Sunningdale on 12 August, the Parker's Salver at the Drift GC on 8 September, and the Autumn Tournament at Epsom GC on 21 October.

Finally, if any greenkeeper can offer their club as a section event venue would they please contact Derek. It is nice to vary the venues we visit each season.

ROGER TYDEMAN

EAST OF ENGLAND

A beautiful mid-May afternoon provided ideal golfing conditions at Belton Park GC, Grantham, the venue for the Purdey's Grass Machinery Summer Trophy, played on a course presented in excellent condition by ex-section secretary Colin Swingler and his staff. Thanks must go to Purdey's, our main sponsor, and to all other sponsors for their generosity.

RESULTS: 1st C A MacDonald 74-4=70. 2nd D Griffin 97-26=71. 3rd M Key 97-24=73. 4th D Hornsey 85-11=74. 5th C Swingler 83-7=76.

The next section event will be the Autumn Golf Tournament at Kenwick Park GC, Louth, Lincs., sponsored by Rigby Taylor, on Wednesday 24 August.

Congratulations are in order to greenkeepers from Thorpe Wood GC, Peterborough. First, Graeme MacDonald has been nominated by Askham Bryan College for the TORO-PGA European Tour Student Greenkeeper of the Year. Second, superintendent Dave Walden won the recent Rhone Poulenc competition featured in The Groundsman magazine. He has now returned from a whistle-stop tour of France.

Finally, if you have any news, views or problems that you would care to see aired (in this publication), please contact me.

MICHAEL FINNEY

MIDLANDS

It is with deep regret that I inform members of the sudden death of Jeff Smith, whose career spanned some 25 years at Walmley Golf Club. plus a period of time spent at Blackwell Golf Club. Jeff, always a keen supporter of BIGGA, will be sorely missed and our thoughts at this sad time are especially with his three daughters.

On 17 June we played our Summer Tournament at Kidderminster GC. The course played long after the recent wet period and with growth at a peak this made for tough scoring. Mike Hughes was not to be put off though, for he won both gross and nett prizes, his nett score being 107 over 27 holes. The Trade Prize was again well contested, with Ivan Toon eventually coming in the winner. We would like to thank everyone for supporting our tournament. in particular the many trade reps who support our section so well. Thanks also are due to Kidderminster GC for allowing us the use of their facilities and for the warm welcome we received, and to Roy and his staff for a well turned-out course prepared during very difficult conditions

During the evening the section presented Roy (the head greenkeeper at Kidderminster) with a cheque for £150 for his granddaughter, who had recently lost her sight due to an illness. Roy, we hope this gift, raised by our

49 members on the day, will provide a suitable toy for your granddaughter.

Dates to remember: Autumn Tournament, Copt



Heath GC, Monday 9 August entries closed. Christmas Tournament, Enville GC, Tuesday 7 December - entries close 7 November

DEAN CLEAVER

BUCKS, BERKS & OXON

Congratulations to Kevin Munt, who won the Parker Harts Summer Tournament at Stoke Poges GC. I know that those present were impressed with the course and we thank Stoke Poges GC for their generosity. In particular, we thank the secretary, steward and catering staff and, of course, Alec Millar and his green staff for producing such excellent playing conditions. Thanks also to Richard Gooding and Parker Harts for their generous support.

Has every BB&O member received this year's fixture card? If you are minus this vital information, call me and I will send one to you straight away. Do you want to try go-karting? Same thing applies, i.e. if you haven't received the information contact me ASAP and I will send etc. etc. - this event is an open invitation and friends and families will be most welcome.



We need your ideas for social events that you would like to see staged next year, also your ideas for the 1994 lecture programme - ring me or write to me with your valued

RAY CLARK

NORTH SCOTLAND

Section members may like to tell non-BIGGA members on their staff that half-yearly memberships are now available for a much reduced fee,

Around the Green



making it a great opportunity to join the Association for the remainder of 1993. New members this month are Andrew Bain from Inverness and one of my assistants, John Urquhart, who rejoins after a couple of years away.

Seven hardy souls made the long trek to Ayrshire for the Scottish Greenkeeping Championships at Brunston Castle, and it is good to report that Caird Park's Paul Murphy picked up the major trophy for the best scratch score. It was certainly worth the journey as Brunston is a superb course and was in great condition, especially as it had only been open for a year. We had good weather, a great time, a big entry, and many old friendships were renewed. The North section is due to hold this competition in 1995, so anyone who would like to put their course forward, please 'phone me and the committee will discuss it at the next meeting.

New member Colin Forbes of Aboyne was fairly burning it up in a competition at Braemar recently. He raced to the turn in 29 and came home in 32 for a three under standard scratch 61 which equals the course record. I wonder if Colin will be at Kirriemuir next month to challenge the scratch boys.

We wish Hughie McLatchie all the best as North representative in this years ICI Premier Greenkeeper of the Year competition. Fine recognition for the work he has done at Peter-

head, which is in fine condition. Hugh has contributed a couple of items this month, first to wish Kevin Peace all the best in his new job as head greenkeeper at Inverurie. A sad loss to Peterhead, but maybe Hugh's new deputy will be able to keep up with him at the bar. His second bit of information concerns another of his staff. Aileen Snowden. She started on the course 18 months ago and has been attending Elmwood College, where she is making good progress. Hugh says she is turning out to be a good apprentice on the course, is a good worker and gets on well with the rest of the staff and members of the club. He advises other greenkeepers not to be frightened of employing female staff.

I recently went to see Alick Mackay at Skibo to see how the new golf course is progressing. Greens and tees are currently being turfed and fairways seeded. All the bunkers are in place and look superb. They have been constructed, using the traditional revetting method, by Alick and his staff. I look forward to seeing the finished article and hopefully playing it in the



future. It will be the sort of course where if the golf is bad there is always the views across the loch or west to the hills, a perfect setting for a golf course, with much wildlife as well. IAIN MACLEOD

Highlight in June was the Scottish National Tournament held in our area at Brunston Castle, near Girvan. Brunston Castle is a new course designed by Donald Steel and is well set to complement the existing first class golfing facilities in Ayrshire. Although open for less than a year the course was in excellent condition, the fairways in particular 62

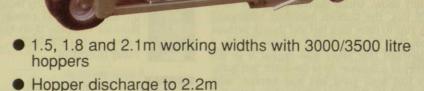






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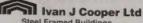
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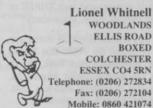
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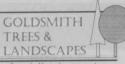
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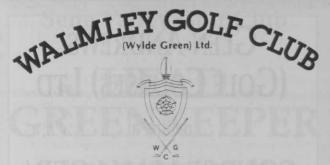
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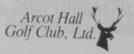
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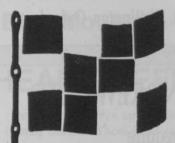
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Royal West Norfolk Golf Club

require a

HEAD GREENKEEPER

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The Secretary
Parkstone Golf Club
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requires a

HEAD GREENKEEPER

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Salary will be negotiable, accommodation is not provided. Applications in writing to include CV by 17 September 1993 to:

Secretary/Manager, Bull Bay Golf Club Limited, Amlwch, Isle of Anglesey LL68 3RY

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requires a

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Accommodation provided.

Applications in writing with full CV should be sent to:

Mr J Greenwood General Manager and Golf Secretary Camberley Heath Golf Club Limited Golf Drive, Camberley, Surrey GU15 1JG



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Accommodation available if required.

Please apply in writing enclosing your CV to Tony Fensom, Club Secretary, Nizels Golf Club, Nizels Lane, Hildenborough, Nr. Tonbridge, Kent TN11 8NX

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Mobile: 0836 376944 Evenings: 0388 772844 Co. Durham DL4 1DL 50 being very mature looking. As it is very long, the club's course manager, Gordon Heron (ex Turnberry), is adding some forward tees to make it more playable for visiting societies, of which I am sure there will be many, once the quality to be found gets around. Anyway, well done Gordon, and thanks to owner Bob Law for doing Ayrshire proud!

Ayrshire chairman Derek Wilson was in fine form in the Irvine Links Championship this year, getting to the semi-final. His opponent was suitably dismayed upon seeing Derek walk on to the first tee with a hole cutter under one arm and clubs over his shoulder – bad luck on not being allowed to use it, Derek!

John Kinder at the Dumfries and Galloway club tells me they had four hole-in-one's over



one weekend of competition in June, one at the sixth, one at the eighth and two at the ninth. Try telling these guys the holes are too small! 'Till next month.

DUNCAN GRAY

SOUTH WEST

Thunderstorms. Has anyone else had trouble with thunderstorms? 35mm of rain fell in just 20 minutes at Minchinhampton last Thursday. Simon Perry of Whites, who was in the shed fitting new hydraulic motors to the gangs, watched in amazement as flood water came rushing in and various small items, later followed by some much larger items, began floating out (indeed, our mechanic had to be forcibly restrained from opening the double doors to let the Sisis Varicore float away.) Still, we didn't have to worry for long, for a lightning strike on the clubhouse set off the automatic fire alarm and before you could say 'man the hose-

Around the Green



reel', half the County Fire Brigade turned up.

Another rather bizarre thing happened this week on a Cotswold golf course. Four members were happily playing the sixteenth hole (appropriately nicknamed the Holy Apostles) at Cirencester, when one of them looked casually up at a high flying aeroplane only to see, to his horror, what appeared to be a body falling from the sky and crashing to the ground somewhere on, or very near, the course. Well, eight fire engines, six police cars, two helicopters, a spotter plane with thermal imaging equipment, and a mobile incident room later, a cargo net belonging to a Hercules Transporter was found in an adjoining field. Never a dull moment!

Robin Greaves found out what team captaincy was all about when the section team entertained the South West Secretaries team at Minchinhampton New Course last month. The secretaries, ably captained by Matt Sullivan of Clevedon, were well organised and well practiced, and won by three matches to two, getting their names on the Avoncrop Shield for the second year running. David Padfield of Avoncrop Amenity was on hand to present the shield and prizes to the worthy winners, recalling as he did the origins of the competition, right back from the days of the Brown's Bowl to the present

time, and pointing out that the greenkeepers have yet to get their name on this new trophy. There's always next year...

Thanks to Minchinhampton New Course for their hospitality, thanks to my staff for preparing the course against all odds during the torrential storms, to the stewardess for the most marvellous meal, and last but by no means least, to Avoncrop Amenity for their sponsorship.

Congratulations to Guy Woods of Castle Coombe on winning the section nomination through to the regional final of the ICI Premier Greenkeeper of the Year competition. Fierce competition came from Ivor Scoones and myself, also nominated, but Robin Greaves' patent scoring method was put to good use and Guy came out a worthy winner by just two points, from a possible 150. I'm sure that we



have a good chance of a national finalist for the third year running. Good luck Guy. PAUL WORSTER

SOUTH COAST

In the regional qualifier for the Hayter Challenge Tournament, held at Clevedon GC in June, three of our section members qualified for the national final, which will be held at Sand Moor GC next month. Congratulations to Brian Newcombe, third in division one, and Shaun White and Paul Jackson, first and second respectively in division three.

The day was marred only by the non-appearance of four of our team, though some with good reason, especially Rob Bailey, who suffered a hernia only the day before! Had a full team been fielded it seemed very likely that the section would have won the Section Shield.

Next year's Hayter Challenge Tournament regional qualifier will be held at Bude GC and because of the distance involved your committee have decided to provide some assistance, possibly by providing a mini-bus and helping financially towards overnight accommodation.

Congratulations also to Mark Webb on being chosen as the section's nomination for the ICI Premier Greenkeeper of the Year award. Mark will now be visited at Alresford GC this month by regional representatives of ICI and BIGGA. Members who played in the Summer Tournament at Alresford will know how his course has changed since being extended to 18 holes.

Alan Mitchell, recently at Test Valley GC, is moving to pastures new – literally – for beginning this month Alan will be head greenkeeper at The Hampshire GC, presently being constructed just outside Andover. His assistant at Test Valley, Andy Blackwell, is taking over as head greenkeeper. We shall be able to see Andy's course next April, as our Spring Tournament is due to be held there.



Finally, members who would like to represent the section in the annual match against the South West in September can contact Paul Drodge on 04252 71954 for further details. BOB DENNIS

COMING UP

August 18-19: The Walker Cup, Interlachen, Minneapolis, USA

September 7-9: IoG Show, Peterborough, Northants

September 14: Supreme Mowing seminar on maintenance of cutting cylinder, Irvine Golf Club, Irvine. Details from Linda Adams: 0709 873436.

September 14-15: The Hayter Challenge Tournament Final, Sand Moor Golf Club, Leeds

September 24–26: Ryder Cup, The Belfry, Sutton Coldfield, Warwickshire

October 11–12: Toro/PGA European Tour Student Greenkeeper of the Year Award, Aldwark Manor.

October 12-13: Kubota Challenge, The Belfry, Sutton Coldfield, Warwickshire

December 6–7: ICI Premier Greenkeeper of the Year Award, Aldwark Manor.

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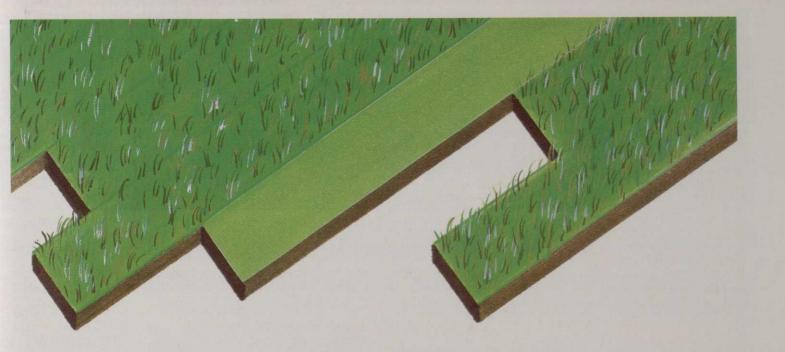
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