SEPTEMBER 1987

# Course Course



THE OFFICIAL PUBLICATION OF THE BRITISH AND INTERNATIONAL GOLF GREENKEEPERS ASSOCIATION



# OUR EQUIPMENT COPES WITH NATURE'S TREADMILL...

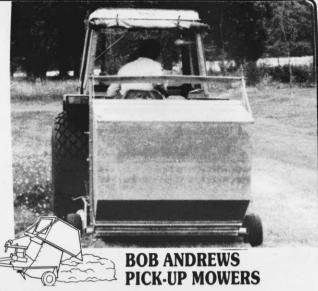
Nature never relents. Maintaining the condition and appearance of parks, golf courses or sports grounds is rather like trying to travel up a 'down' escalator . . . it demands constant effort just to stay abreast and its hard not to *lose* ground. Bob Andrews' equipment ensures that any project stays manageable . . . a comprehensive range of high performance machines that are easy to operate, built to last and designed to handle the toughest tasks, swiftly and effectively. Mowing, spreading, scarifying, leaf collecting . . whatever the job, whatever the conditions, Bob Andrews Ltd. can provide the equipment to keep any situation well under control.

#### TRUE TEMPER CYCLONE SPREADER

The pedestrian "Cyclone" is as impressive as its name implies. A durable

and well-designed unit that spreads any free-running material with an efficiency that's outstanding. No heavy concentrations to damage the turf, no breaks in the pattern leaving ections untreated. no underlap, no overlap . . . just a smooth and uniform delivery at a rate between ½-8 oz per sq. yd. and a spread width of 9 ft.





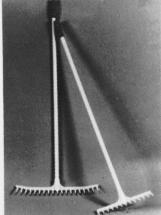
A range of sturdy and versatile tractor drawn pick-up mowers that give high performance for a low outlay. Easy to operate, simply to manoeuvre and quick to unload, they mow and *collect* long or short grass with equal efficiency. They are ideal for scarifying mown areas and collecting rubbish, twigs, thatch and fallen leaves. With a Bob Andrews Pick-Up Mower on your team you have the power to make short work of time-consuming tasks.

# AMAZONE TRACTOR-MOUNTED SPREADERS

These are the broadcast spreaders by which all others are judged . . . and found wanting! Over 800,000 sold so far, Amazone spreads all fertilizers and dry dressings accurately and speedily. 6cwt.



accurately and speedily. 6cwt. per load . . . spreading width 4 – 33 ft.



#### GOLFER'S RAKES

Light enough to use with one hand, yet almost indestructible, Bob Andrews' Golf Bunker Rakes have flexible shafts and heads, and an in-built durability. Every good bunker deserves one . . . two if its a big bunker . . . and the price is a pleasant surprise.

Write or phone for full details and name of your nearest stockist.

# BOB ANDREWS 1

MORE POWER TO THE PROFESSIONALS

PONTIACWORKS, FERNBANK ROAD, ASCOT, BERKS. TEL: 0344 885575.

# Course

#### SEPTEMBER 1987

Front cover: David Crawley in action in Corfu

FACE TO FACE with Peter Wilson	6
IOG REVIEW	12
RESEARCH UPDATE by Neil Baldwin of the STRI	22
BOOKS ON BOTANY by Eddie Park	24
ABROAD ON THE GOLF COURSE - COR	FU 28
TREES PART 3 by Tony Gentil	30
NOTEBOOK	33
APPOINTMENTS 34	4,42,43,46
BUYERS GUIDE	47

Publisher: Fore Golf Publications Ltd Managing Director: Michael Coffey

All advertising matter, editorial copy and correspondence should be sent to: The Golf Course, 121-123 High Street, Dovercourt, Harwich, Essex. CO 12 3AP Tel: 0255 507526

Subscription rates: UK - £18 USA - \$45 Continent - £30 Eire - IR £23

The Golf Course is published ten time a year. Printed in England by J.B.Offset, Marks Tey, Colchester, Essex. Copyright: Fore Golf Publications Ltd 1987



# HORTICULTURAL EQUIPMENT LTD

Chapel Works, Waldringfield, Woodbridge, Suffolk.

FOR ALL YOUR RECONDITIONED MACHINERY REQUIREMENTS

PHONE ALAN CLARKE

ON

0473-36-791

A member of the CDC Group PLC

# BIGGA UPDATE

THE office base at the Sports Turf Research Institute in Bingley is now operational and all correspondence in connection with the Association's affairs should be forwarded to me there. The first few weeks have been an exceptionally busy period and priority has been given to processing the membership applications, whilst not neglecting to attend to other matters of

urgent concern to the Association.

The membership response has been encouraging, with over 1500 membership applications already received. A number of members have requested membership cards and naturally these are of priority concern. However it is essential both for the Association and the magazine's purpose that an accurate membership list is compiled. It has become clear that the membership lists of the three merging Associations, on which circulation of the magazine is based, were substantially inaccurate in terms of members' correct address. It is therefore a considerable task take to make the necessary amendments and of great importance that this is accomplished before membership cards are sent out - otherwise many members will not receive their cards. I would ask for patience therefore, but if any member is experiencing particular difficulties through the lack of a card, he should contact me personally and I will let him have a confirmatory letter to Please ensure that all future membership. changes of address are notified to me.

Members will be interested to know that the Board of Management has now established a subcommittee structure to process the Association's

affairs. There will be three sub-committees:-

(1) **General Purposes.** This sub-committee will have a wide ambit and, as well as dealing with finance and staffing matters, will consider such matters as membership categories, subscription levels, uniform and Association logo.

(2) **Magazine.** This sub-committee is charged with planning the magazine's future development

and the production of a high quality Journal.

(3) **Regions.** This sub-committee will be particularly important in the initial period of the Association. It will be responsible for establishing a strong, effective regional/branch structure and taking account of members' views. A map indicating the present situation is included in the magazine and the sub-committee will be reviewing the current position and making recommendations to the Board.

The magazine sub-committee has already met whilst the other two sub-committees are meeting

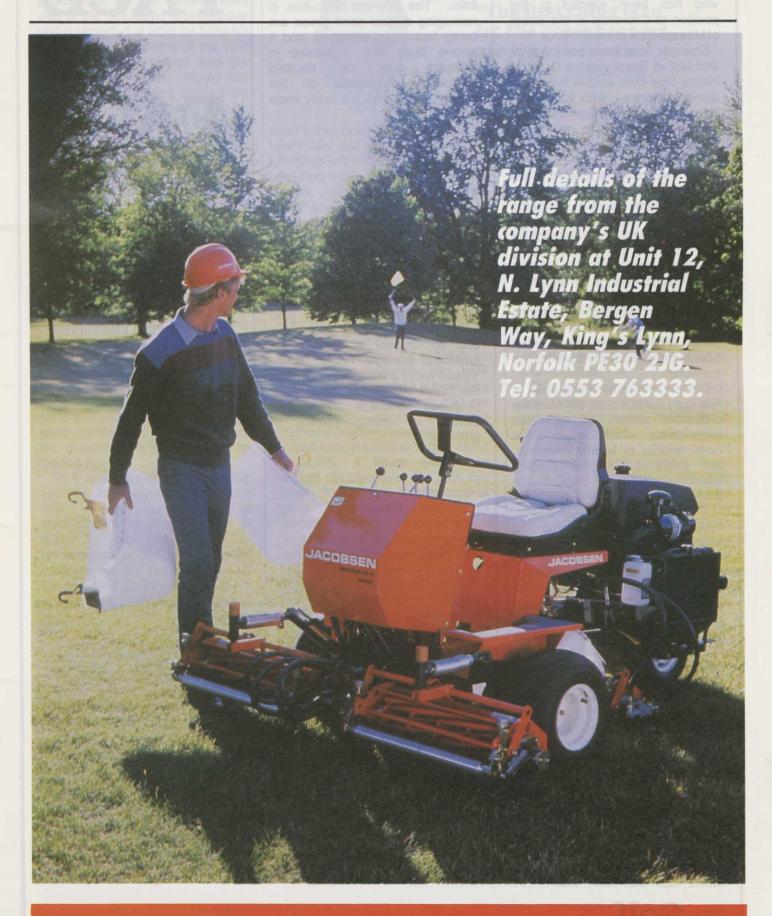
in early September.

I am currently looking at benefits for members of the Association and you will find details elsewhere in the magazine of a Legal Advisory Service available to paid-up members as at 30th September and funded from the current year's subscriptions. This is the first step in the provision of a comprehensive benefits package which I will be working on in the next few months.

continued on page 26



# JACOBSEN



**Greens King Team...The Best in the Business** 

ONE hot day in July, I travelled up to Bingley to see Peter Wilson, who has been elected to the position of Chairman of the Board of Management of the STRI.

Changes have been coming thick and fast at Bingley since Dr Peter Hayes took over almost five years ago as Director. With an hour to spare before my appointment, I took the opportunity to walk round the entire establishment and note the changes.

The most striking feature is the new building which has a certain modern charm about it. Thinking back to the cramped and dusty premises which were rented for over fifty years in the main building of the St Ives estate, there can be no nostalgic feelings of regret for the old days. Instead there is the quiet hum of computers, spacious laboratories and even a pleasant library with a handy collection of books and periodicals from across the world.

Outside, in the blistering heat, at first sight the trial plots still have the distinctive pattern of replicated experiments which would have been familiar to Norman Hackett, ten years before his Bingley brainchild could be brought into being.

Today's actual experiments, however, seem to be changing with increasing rapidity. Just time to feel a moment's regret at the sight of the museum of grass species and weeds near the entrance being moved to another location after so many years, and then the realisation that workable space here is at a premium.

Next, a walk down to the newest terrace at the lower end of the plots, where two young men in shorts were carrying out controlled fertiliser experiments on the sand based plots which form part of the work being financed by the R & A.

Two thoughts flitted through my mind - firstly, that it isn't just policeman who look younger - so do some agronomists and research scientists! Secondly, and not with any great surprise, that a pure sand green sown to a mixture of fescue

and bent begins to look remarkably like a traditional British seaside links. The inherent difficulties in managing a pure sand green are being faced and analysed and it seems likely that increases in nitrogen may be causing increasing dominance of the bents. I don't think we really knew that before!

My hour had passed and I must hurry back for my talk with Peter Wilson, a member of the delightful Formby club near Southport and still a very useful golfer, though getting little practice these days. To use his own words: "My game is so variable I can take as many as 55 strokes for the first nine and return in as few as 35".

He is a man with a legal training (and it shows) and many years in practice as a solicitor, but also some years of rearing beef cattle and an interest in the French grassland ecologist Andre Voisin. Voison wrote a number of books in the Fifties and Sixties which were published worldwide and was a pioneer in raising interest in grasses.

# FACE TO FACE

Eddie Park talks to Peter Wilson, Chairman of the Sports Turf Research Institute



The trial grounds at Bingley, showing in the foreground, museum plots used for grass and weed indentification.



Peter Wilson's commitment and enthusiasm for the administrative side of the golf game is impressive and is targetted at what he believes are the main concerns of the club golfer - the golf course and the handicapping system. Would that all golf administrators shared his priorities! We had no time to discuss handicapping, but it is of interest that he is a member of the USGA handicap research team.

On the greenkeeping side he was proposed by Frank originally Fawcett, now a Vice-President of the STRI, to serve on the Greenkeepers' training committee which was going through a difficult period some years ago, and he is in his second spell as chairman. Meanwhile he had been nominated to the STRI Board to represent the EGU and became Vice-Chairman. His name came especially to the notice of greenkeepers when he chaired the steering committee set up to try to form a joint Association and he is a trustee of BIGGA. Just for good measure he is a member of the greenkeeping panel set up by the R & A.

So it is a man with a formidable appetite for committee work who now chairs the Board of Management at Bingley. He is quick to pay tribute to his predecessor John Tanner for the progress we are now seeing. Mr Tanner held office for ten years and without his judgement and ability to mobilise financial aid from the world of football, it is doubtful if the STRI would have survived.

As Peter Wilson points out, the increasing emphasis on golf turf actually has valuable spin-offs benefits for other sports as golf consistently demands only the highest quality turf.

In the course of a discussion on finacing, I learned some interesting facts. As opposed to some other research institutes, the STRI has to earn practically every penny it spends. No government handouts to maintain the infrastructure.

There is some government cash channelled through the Sports



"The first thing is to let the greenkeepers see that they can trust our advisers..."

PETER WILSON

Council (£71,500, which equates to 13% of turnover) the greater part of which is likely to continue because it represents payments for services rendered - for instance grant vettina applications. education, etc. Research work there actually saves money for the Government purse, for example by undertaking research into new varieties of grass which require less cutting, and also research into low maintenance inputs for Local Authority grass maintenance.

Total annual turnover is now about £600,000, a figure which has almost doubled over the past five years. Apart from a small number of ex-gratia donations, this is all earned in one of two forms, either as payment for advisory services or as funding for research contracts.

I soon discovered that Peter Wilson shared my belief that the potential market for golf advisory services may turn out to be much larger than has been hithero to apparent. How then could that potential be realised?

"The first thing is to let the greenkeepers see that they can trust our advisers and then I hope that they, and not always the clubs, will be keen to take the initiative in calling for advice in the early stages of a problem."

Following this, a desire that members of a unified Greenkeepers' Association will get into the habit, around the country, of meeting in small local groups to share their expertise and discuss their problems and jointly realise

the benefits of professional advice.

Another positive though was that more instruction might be aimed at the head greenkeepers in particular, "...as that will influence larger numbers more quickly". Not with standing "It must be right that 90% of greenkeeper training should continue to take place in the workplace".

We found ourselves in complete agreement that many greenkeepers were living in a "pressure-cooker" atmosphere because of the problems of interference with sensible longterm plans by members and club committees. The Board would take a sympathetic look at the need, not just to give agronomic advice to clubs, but to take a hand in the task of persuading them to implement it in full. Help from the golf unions in the education of golfers in general would be advantageous.

Continued on page 9

# FACE TO FACE

Course







If you're looking for the best value it can only be TORO ... we may not be the lowest price but in the long run TORO are by far the finest economical and efficient TURF MANAGEMENT EQUIPMENT.

To prove the point why not have a demonstration working under your own conditions ... you'll soon see what we mean

particularly if you have other equipment to compare.

TORO

# Quality erformance eliability

most manufacturers say it

WINDSOR SHOW
Stands F 1—6 and 25—31
... and there's sure to be something NEW!

Peter, "The Board accepts and is investigating the possibilities of increasing business by offering improved advisory services". But there have been substantial improvements already, such as the much more "personalised" reports to each club (indeed a far cry from the old brief and rather generalised reports) and also by the formation of a specialised 'golf unit' with four or five agronomists dealing only with golf courses.

The STRI recognises that fuller initial surveys, plus management plans, plus follow-up visits, should be available for those who need them. A last word on golf advisory work - it has risen by 23% this year and construction consultancy work by no less than 50% (This latter catergory includes the recent announcement that the STRI will act as the main consultants for the new South Course at Wentworth).

The positive goodwill shown by Jim Arthur in suggesting to many of his former client clubs that they now use the STRI is acknowledged, and there is satisfaction that the institute is now the joint agronomist to the R & A with responsibility for the qualifying courses for the Open Championship.

So, to the research side of things, which represents 30% of turnover, and first a bleak statement that golf has had little or no research done in the past, simply because it hasn't paid for any. In the context of a research establishment setting out to fulfil contracts that really does mean "nowt for nowt". It is clear that the initial decision by the R & A to use some of it's profits from the Open to finance golf course research has been a great step forward.

There is now enthusiasm for golf and increasingly the Annual Journal reflects that in it's content. Incidentally this year's edition has been totally edited by STRI staff (led by Mike Canaway, the senior research officer) to the point that only a small computer disc had to be sent to the printers - a feat of which the Chairman is justly proud.

Three initial golf projects are now well under way. I have mentioned the large experiment on the construction, maintenance and requirements of pure sand greens, and they are already showing practical results. Neil Baldwin, the pathologist, is deeply involved in the Fairy Ring problem and has added to his brief the question of Dry Patch. (see pages 22/23).

The thing about that project that will appeal to many people is the fact that much of the work is being done on the fairways and greens at golf clubs in nearby Yorkshire and Lancashire. In the Thirties, Bingley maintained what they termed "outstations" at a number of clubs. such as Muirfield and Western Gailes, where they could rely on the head greenkeeper to oversee experiments on normally managed courses. A return to that tradition will do much to reassure those who doubt if all the academic experiments on a Yorkshire hillside will produce results that will assist the practical man.

The most dramatic studies are those by Steve Haake on ball impact on golf green turf under the joint supervision of Dr Alastair Cochrane of Aston University, who supplies much of the expertise for implements the balls and committee of the R & A. This basic research has also been assisted by a contribution towards equipment from Acushnet. Steve is already visiting clubs with his fascinating battery devices, developed for firing golf balls on to turf with known velocity and backspin and recordina the impacts using stroboscope photography. computer model of the process of impact has also been developed.

There are tremendous implications in this research for greenkeeping. Are we right to go to the enormous expense that would be required if receptive greens at all times are demanded? And can they be viable in the long term?

The R & A now has machinery to ensure that funds generated by the Open Championship are wisely

# FACE TO FACE

spent for the benefit of the fame of golf. A number of papers have been submitted by the STRI, detailing a strategy for possible research and some projects dealing especially with irrigation, ecological surveys and the specific requirements bents of fescues. These are at present being considered, but there is every indication that golfing research, so long neglected, is now viewed with enthusiasm by the authorities.

The advantages of having a research capability under the same roof as an advisory service are now more obvious than ever. There are so many current problems on golf courses to which the honest answer has to be that we do not really understand what is happening. For too long American research and methods were followed and have proved to be inappropriate in our climate.

Peter Wilson, as Chairman of the Board of Management of the STRI was keen to promote all these present achievements of the staff and to involve us all in their future. He comes over as a man with a lawyer's habit of precision and of insisting on hearing both sides of the case, probably no bad thing in a job with such responsibilities.

We must all wish both he and the Institute well; nobody, least of all myself, would pretend that the task facing them is an easy one. It will require a great deal of imagination and creativity to produce the advice and research that is so badly needed.



are you concerned with root development

Slow hard growth, a thick sward, drought resistance, soil conditioning, grass seed germination, tree planting, fine turf, land reclamation, indoor landscaping, a balanced management system, destructured soils, deep green colour, improving your soil ...

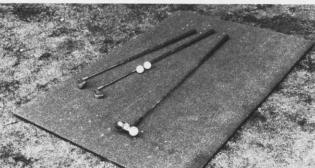
... then Farmura Environmental Products can help your management programme.

Ask for details of the Farmura range of products or write for colour brochure to: Farmura Environmental Products, Stone Hill, Egerton, Ashford, Kent. TN27 9DU. Tel: Egerton (023376) 241



# CARPETTION

THE 'TUFTURF' TEE MAT — Like a piece of firm, well sprung fairway



AND FAIRWAY SHOTS



FOR TEE SHOTS



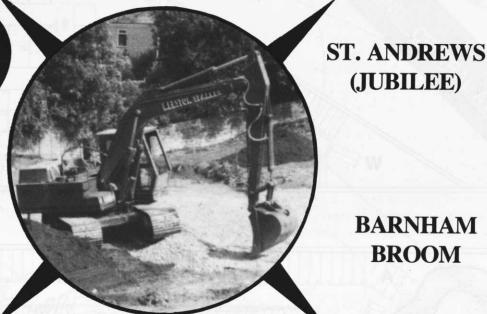
"A British made porous hardwearing all weather tee 1.5m x 1m and 2m x1m. Synthetic grass, bonded to reconstituted rubber underlay shock pad with 60 tee inserts, combine to give a superb playing surface. Its use is highly beneficial as a WINTER TEE, or when re-turfing tees in the playing season. Also ideal for DRIVING RANGES and PRACTICE GROUNDS both indoor and outdoor." Further details from:-

CARPETITION LTD., 6 KAFFIR ROAD, EDGERTON, HUDDERSFIELD HD2 2AN. Tel: 0484-28777

## **COURSES CURRENTLY UNDER** CONSTRUCTION

VERTI DRAIN HIRE BOOK NOW

**PUTTENHAM** 



**BARNHAM BROOM** 

(JUBILEE)

Brian S (Contractors) Limited

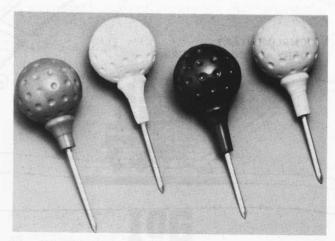
Homestead Farm, Ringwood Road, Three Legged Cross, Wimborne, Dorset. BH21 6QY Telephone: Verwood 822372 & 824906 (STD 0202)



# THE NAME for golf course equipment and furniture



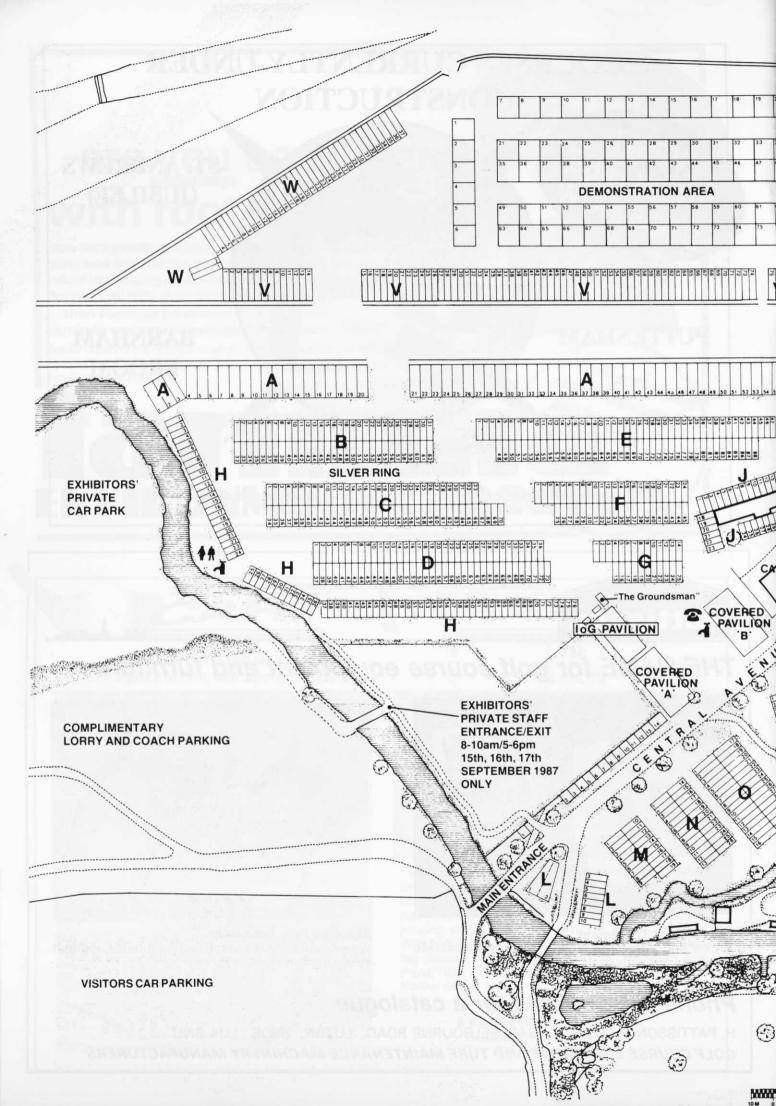
The Portland Tee Marker A new and attractive, maintenance free concrete block marker with an ALDURA tee plate.

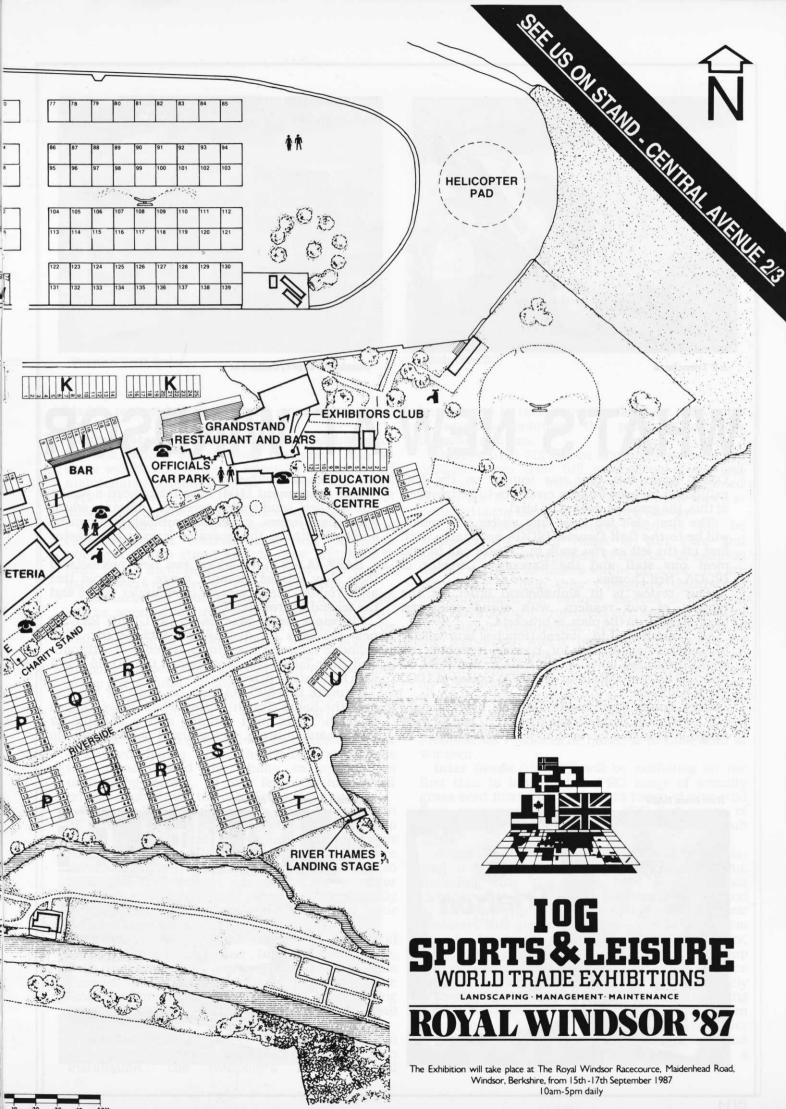


The 'Golf Ball' Teemarker A new solid resin attractive 3" diameter addition to our comprehensive range.

#### Phone 0582 597262 for a catalogue

H. PATTISSON & CO. LTD., 342, SELBOURNE ROAD, LUTON, BEDS. LU4 8NU GOLF COURSE EQUIPMENT AND TURF MAINTENANCE MACHINERY MANUFACTURERS







AF Trenchers



Jumbo Sweeper/Collector

# WHAT'S NEW AT WINDSOR

ONCE again this year our feature on the IOG exhibition focuses on new products to be unveiled at this, the greatest show of its kind.

The first visit we hope any visitor will make, will be to the Golf Course/BIGGA hospitality unit, first on the left as you walk in. Please call in and meet our staff and the Executive Director of BIGGA - Neil Thomas.

Our review is in alphabetical order, at the request of our readers, with stand numbers, located easily on the plan, in brackets.

AF Trenchers Ltd., latest trencher is a tractor mounted wheel model for narrow trenching on sports grounds, suitable for tractors between 60 and 120 hp and will slit at speeds at excess of 1000 yards per hour.

Allen Power Equipment (R13-14) have brought out a 68" park ranger triple mower, to add to their This model is competitively priced at range.

£3195 complete with electric start.

Agar Equipment (A04) have introduced a jumbo box to their semi-trailed sweeper collector, which will collect leaves, grass and rubbish and can be emptied without the operator leaving the tractor seat.

BASF (A1-3) have added two new products to their slow release Floranid range - Floranid tree and Triabon, the former for trees under stress and the second for tree planting.

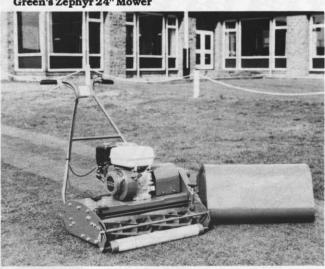
Claymore Grass Machinery (R21-26 & R51-54) new products on display will include the 1988 cylinder mower range from Green's of Arbroath and their latest compact tractor the 20 hp C174 with hydrostatic drive.

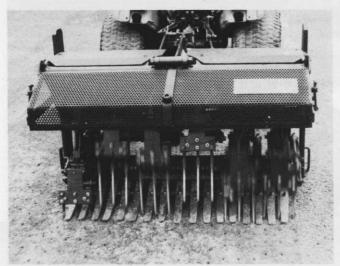
Countax Ltd (IO5-06) have on show for the first time the Sabre Tough Cutter which is well priced at £295. It is quiet running and is suitable for steep bank cutting, being fitted with swing tip

New from BASF

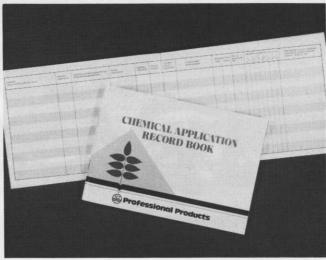


Green's Zephyr 24" Mower





'Popular' Verti-drain



Help from ICI

blades to resist damage from stones and metal objects.

**Dabro International** (R33-39) are exhibiting for the first time a top dressing machine. Also on show will be the range of specially designed turf maintenance attachments for the new Ransomes TMV 20 power unit. All the company's turf maintenance machines will be demonstrated.

**John Deere** (V59-68) the world's largest ground care equipment manufacturer, will be again hoping to win a stand award. New additions to their range include the 303 and the 305 trailed gang mowers and the AMT materials transporter.

Charterhouse Turf Machinery (Q12-15/35-38) will be announcing a new addition to their Vertidrain range called the Popular, designed to be matched to a 16 or 18hp tractor with hydrostatic drive. The 'Popular' like its big brother is designed to penetrate the soil with its tines and heave the ground. Hollow tines can also be fitted which penetrate to a depth of 7 inches enabling substantial quantities of top dressing to be put into a green.

**Europlume Ltd** (D44-45) will be exhibiting a new 4 wheeled tipping truck, the Hauler, with a one ton capacity and the ability to operate on undulating terrain. It also features three point linkage enabling the use of turf care attachments.

Farmura Ltd (027-28) have a major new addition to their range, Ferrosol liquid iron. Easy to it produces green-up without over stimulating growth and is ideal presentation is the key. The company will also have the first results on display of a major programme research which scientifically validates the claims made by them and their satisfied customers.

**Fisons**(H27-30) will be extending the brand leading Greenmaster fine turf fertiliser range, with the launch of a new formulation. This product will further enhance the flexibility of the Greenmaster range. They will also be featuring their chemical range including Trito and Turfclear.

Golf Landscapes (D39-41) will feature their own developments in drainage/water system installation. The company's Directors will

be on hand to take enquiries for their wide range of services including the provision of Toro irrigation systems.

Huxleys (R14-20) will be showing representative products from their full professional grass and turf care range, including their own mounted mower the TR138 (see July Greenkeeper) which is designed to cut the most undulating fairway.

ICI Professional Products (S26-30) will be displaying their full range of turf care and amenity grass management products. In addition the ICI and SAI fertilisers will be on show. ICI are continuing to help their customers understand and implement the various aspects of the Food and Environment Protection Act and the Control of Pesticide Regulations. An important part of the legislation which has been overlooked by many, is the requirement to make records of all pesticide applications and to keep such records for a minimum of three years. ICI have produced a superb Chemical Application Record Book, free copies of this book may be obtained by sending a self addressed envelope (min 10" x 7") to ICI Professional Products or hand it to their staff at Windsor.

Inter Seeds (H32-33) will be exhibiting for the first time to launch their PRO range of amenity grass seed mixtures, PRO Flora range of nine wild flora conservation mixtures, PRO-Fert range of 14 fertilisers and PRO range of tree and shrub seeds.

Jacobsen (covered pavillion A) will be displaying a comprehensive range of their products, including the TRI-King 1471 (see August Greenkeeper) and the very popular diesel version of the GreensKing, with the option of fitting their exclusive turf groomer system. The same system may be fitted to the range of pedestrian mowers, the turf groomer (see March Greenkeeper) lifts up and cuts horizontally growing grasses and surface runners, which are then clipped by the closely following greens mower reel. A new five gang gang mower has hydraulic Ranger This is light enough to roll over introduced. delicate turf, yet features a rugged design and powerfully driven reels that will give a tournament-quality cut.



Johnsons Seeds have just issued a new colour brochure for the JR range of Reclamation Mixtures based on the unique and versatile British bred red fescue Merlin. Listed are ten mixes carefully formulated to cater for extreme conditions which are beyond the capabilities of the conventional turfgrasses used for amenity areas.

**Kubota** (W32-27) sponsors of the Kubota Challenge, will be exhibiting a number of new products this year, among them are a variety of new attachments for the F2000 and a new model 12hp tractor the B4200. A ride on petrol mower the TI400H is also making its debut. Most of the company's equipment will be in action on the demonstration area.

May & Baker (P1-5) are concentrating on exciting fresh developments to ensure better efficiency and effectiveness of pesticide control. They will also be featuring regular showings of the second of their videos covering the essential requirements of pesticide application. Also watch out for the company's new corporate image.

**F.W. McConnel** (V9-11) are exhibiting for the first time and will launch five new products. Among them will be a high quality front end loader for compact tractors and a rotary grass cutting system.

T. Parker & Sons (Q01-03/23-26)) will have a comprehensive range of products on display including new spring and summer fertilisers offering slow release nitrogen based on IBDU with zero potash and phosphate. The company has recently been appointed local distributor for the InTurf range of mature cultivated turf, and will be showing samples of what this competitively priced range has to offer.

Polymark Beaver (K1-8) will introduce four new products at Windsor this year, a pedestrian mower, vertical mowing heads, a high capacity flail mower and a seven gang hydraulic drive mower available with 4, 6 and 8 blade cylinders which can be supplied with front rollers.

Ransomes (001-10/17-26) are showing for the first time amongst their comprehensive range of cutting equipment, two successors to the widely





The Super Certes



# The new Ransomes GT.





Sisis Hydrocore



Even - Spread from Superturf

used Auto Certes - the Super Certes for the golf greens and the Super Bowl for bowling greens. Both are available with 20" or 24" cutting widths and with ten bladed cutting cylinders and micro hand wheel height of cut adjustments on either side of a full length steel front roller. The Super Certes has a separate clutch for engaging the cutting cylinder, an extended landroll shaft for fitting power driven transport wheels, the grass catcher is made from polyethelene and the machine can be fitted with a brush and comb set.

**Rolawn** (H34-36) have recently been awarded the contract for the 1988 Glasgow Garden Festival with deliveries of their RB Medallion turf now being made at up to 1200 square yards per week. The company will be distributing from their stand a leaflet on aftercare of their turf.

SISIS Equipment have this year moved their entire stand to the demonstration area in the centre of the racecourse. Most of their extensive range of equipment will be in action so that the customer can try before he buys. New at this year's show are developments within the hydromain

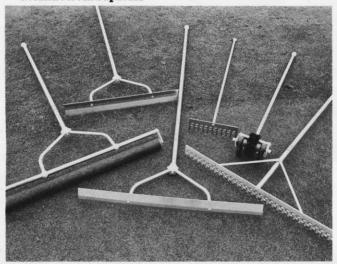
system and a Hydrocore aerator.

**Soilife** (Central Ave 46-47) is once again available through Farrant Chemicals (tel: 0962-51226), production of this compaction relieving product has been moved to Cork and stocks are on hand in the UK.

Supaturf Products (A38-40) in addition to displaying the product ranges they distribute for national industry suppliers, Supaturf this year will be launching a host of new products. Among these will be an exclusive range of high quality professional spreaders, new ground maintenance equipment and a new fertiliser formulation. The 'Even-Spred' carries a five year rust guarantee, is self cleaning and perfectly balanced to provide smooth and efficient operation. The 'Goldline' range of products are all manufactured to the highest quality and include rakes, lutes and roller squeegee. They are produced in an alloy a third of the weight of steel but corrosion proof.

**TORO** (F1-6 & 25-31) are introducing many exciting new models and design amendments to their product range. There is a new Reelmaster

Goldline from Supaturf



Toro GM 3000



# great reasons great visit stand k gur

BEAVER **TM308V** 



(0903) 783155. Telex: 87683 Poly G. Fax: (0903) 784428.

MAKERS OF FINE QUALITY MOWERS AND GROUNDS MAINTENANCE EQUIPMENT

THE COMPLETE IRRIGATION SERVICE FOR THE PROFESSIONAL

> FROM THE PROFESSIONALS-

# rime

**Weather-matic** 



Whatever your irrigation need for-Parks and Gardens Shrubs Tunnels Nurseries

Whatever your choice -

**Automatic Pop-ups Sprayheads Hose Reel Irrigators Drag Hose Irrigators Mini Sprinklers Drip Irrigation** 

CONSULT THE PROFESSIONALS-

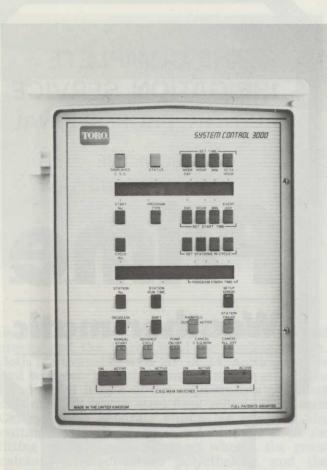
#### Prime Watermen I

WANGFORD · BECCLES · SUFFOLK NR34 8AX TELEPHONE (050 278) 481 · TELEX 975731 PRIME G





Meet us at Stand D07-08 I.O.G.



450D complete with modern cab and a Reelmaster 108 comes in as an updated version at the smaller end of the scale. However the machine that will create the greatest interest amongst greenkeepers visiting this stand will be the new Greenmaster 3000. Amongst its refinements are new seals to cut down on the possibility of oil leaks, a quieter and more durable Kohler engine, electric ignition.

Unrestricted cutting unit flotation improves steering and an enlarged fuel tank (7.5 gallons) are two other features of this sophisticated greensmower.

a new British designed and built high-tec controller the System Controller 3000. This is the first of a series of 'next generation' automated controllers, and is aimed to fill a gap in the golf course market. It has already been successfully tested on courses around the country. Competitively priced, the SC3000 can operate up to 396 watering points through a choice of four programmes and comes with a two year warranty.

Victa UK (P11-16) are introducing the new Ryan Greensaire 24 aerator to replace the well proven Greensaire 11. This new model with its 24" Swath and operating performance of up to 8000 square feet per hour, has new seals shafts and slides bearings with Teflon coatings, helping to give three times normal operating life. Also the introducing company is a new rotary professional grasscutter, the 505 Push. Victa now under new ownership, has recently moved premises to 2, Beechwood, Chineham Business Park, Basingstoke, Hants. Tel: (0256) 50301.

Vitax (E51-54) will be presenting two of its latest developments at Windsor, KEY N, is a nitrogenous fertiliser (20%N) containing three sources of nitrogen quick, medium and slow release, to give a continuous supply of plant food as the turf requires. SR2 a slow release fertiliser for application in the autumn when temperatures are 10 c or below, nitrogen is held until new growth begins in the spring. Also featured will be a range of KEY products which underline the company's zero phosphate commitment.

Course

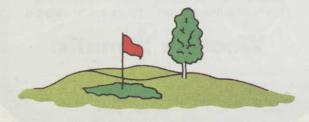
We've built more courses than everyone else put together... for new constructions, alterations or improvements on your course...



ASHWELLS ROAD BENTLEY, BRENTWOOD ESSEX: CM15 9SR

> Telephone: (0277) 73720 Telex: 995215 GOLF LG

The proven experience in the field for construction, drainage and irrigation



# The ultimate greens machine.

he Ransomes GT is the ultimate greens machine.

It's fast, efficient, economical and incorporates a host of features to give you more control over mowing operations than ever before.

With a working width of 1.68 metres, the GThas 9 knife cutting units for that special finish and a choice of optional units for teesmowing, verticutting and vibra-spiking. All units are interchangeable without the need for tools.

Powered by a diesel engine for maximum economy, the GT is distinctly quieter in operation. The low slung engine ensures excellent stability to negotiate slopes and banks.



And the GT is all hydraulic for maximum efficiency.

Hydrostatic transmission lets it travel up to 12km/hr. Hydrostatic drive provides instant forward and reverse with infinitely variable speed by a single pedal. Combine that with power steering and manoeuvrability is exceptional.



A second foot pedal controls the lift and lowering of the units and the hydraulic drive. A unique feature is the electronic push button control which allows the units to be locked out of work in any combination for perimeter cuts. It also controls drive and lift functions for service use.

To ensure the right finish there's a digital cuts per metre readout. The working speed and cutting ratio can be predetermined and maintained for every green. Higher transport speeds do not affect the pre-selected cutting ratio.

The units are programmed to lift and lower in sequence to finish or start precisely at the same point on the green. A backlapping facility is built in to keep the cutters razor-sharp.

For ease of accessibility to empty the grasscatchers or for routine maintenance the operator's platform is simply raised in seconds by releasing a single latch.

Yes, the Ransomes GT heralds a new era in greensmowing excellence. It brings a new style in golf course maintenance and it's designed and built in Britain.











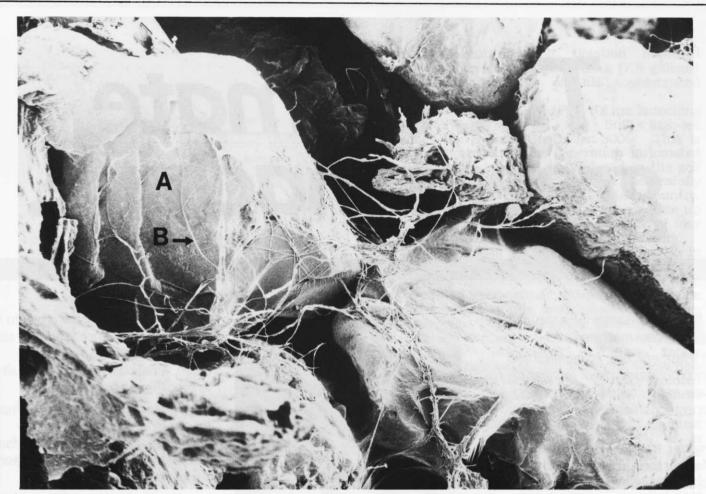


Figure 1

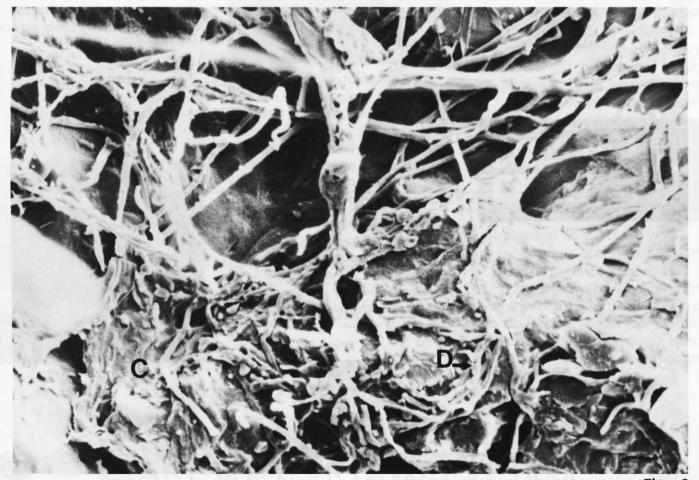


Figure 2

### RESEARCH UPDATE...

Neil Baldwin, plant pathologist at the Sports Turf Research Institute has been researching the causes of and solutions to the dry patch problem. In this article he describes in detail one of the main causes of dry patch and describes control measures available.

MOST greenkeepers will have come across the condition known as "dry patch" at some time during their working life. The typical dry patches which affect both sward uniformity and the playing quality of the turf occur as frequently on less intensively maintained areas like fairways as they do on the finer turf of golf greens. Causes of dry patch are many and varied.

Dry patch may be caused simply by the physical characteristics of the area, such as mounds or undulations which, being higher than surrounding turf, are the first to dry out.

Localised dry spots can also be created by compaction due to foot traffic or extra mowing around the green perimeter. The formation of a surface mat of fibre can also be a factor in dry patch development. Where such fibre is allowed to dry out, it is extremely difficult to rewet, and consequently these areas show up as very dry patches.

In most cases, special hand work (aeration and watering with a wetting agent) should be effective in dealing with cases of dry patch.

Of increasing concern is the type of dry patch caused by certain soil-inhabiting fungi, to which sandbased greens are particularly prone. The classic example is, of course, the dry bare patch or ring created by the fairy ring fungus Marasmius oreades.

FIGURE 1. Sand grains (A) covered with fungal mycelium (B). (approx. x 400 magnification).

FIGURE 2. Extensive colonisation by fungi (D) covering sand grain with a waxy, water repellent substance (C). (Approx. x 1000 magnification). Recent research at the STRI has examined closely dry patch areas and, in many cases, dense fungal mycelium has been found in affected areas. It has been found that the zone of maximum non-wettability in such patches is immediately below the thatch layer, i.e. in the top 1-2 cm of soil, which confirms similar studies on dry patch undertaken in New Zealand.

In collaboration with Leeds University, sand grains from this water-repellent zone have been examined using a scanning electron microscope (SEM). Whereas an ordinary optical microscope works by focussing light rays of a magnified image using glass lenses, a SEM relies on beams of electrons focussed using magnets, which are then viewed on a television screen. As can be seen in the photographs (left) superb quality images at high magnification can be obtained.

These photographs give us indication of how the fungus makes the affected area so waterrepellent. When observed at low magnification, (Fig.1 approx. x 400) sand particles covered with wispy fungal mycelium can be seen. At higher magnification (Fig. 2 approx. x 1000), the fungal mycelium seems to be embedded in a substance coating the sand grains. Workers in New Zealand have analysed these substances and they have been characterised as waxy materials which, by their very nature, are hydrophobic.

Now the exact cause of this dry patch condition has been elucidated, strategies to alleviate the problem can be developed. To date, extensive use of wetting agents such as Aqua-Gro, Pene-Turf or Synperonic on a routine basis have been met with some success.

#### DATES FOR YOUR DIARY

THE dates and venues of this year's Turf Care Workshops, a national series of regional conference, are now available.

Šuch notable industry personalities as Dr Peter Hayes (STRI), James Kidd (Gleneagles) and senior representatives of such leading companies as ICI, SISIS, TORO, SAI, LELY and FARMURA, are all coming together under the chairmanship of Howard Swan, Chairman of the National Turfgrass Council.

Write to Turf Care Workshops, Freepost, Basildon, Essex. SS16 6BR for more details.

THE British and International Golf Greenkeepers Association, Northern Area, are holding a one-day seminar on Thursday, 19th November on 'Greenkeeper, Golf Course and Conservation'.

The seminar is being held at Askham Bryan College of Agriculture and Horticulture, York, and its objective is to highlight and bring into perspective the golf course environment, its ecology and the way it is manipulated, used and abused.

Speakers will include Dr Andrew Deadman from the Nature Conservancy Council, Bob Rust from the Leeds Weather Centre, Dr Kenneth Mellanby from the Institute of Terrestrial Ecology, Fred Hawtree, a golf course architect, Martyn Jones, a Consultant agronomist, and David Hannam, a head greenkeeper.

If you would like to take part, contact David Hannam on Menston 72008. The fee for the day, which will include lunch, is £15

#### *`COURSES IN TURF MANAGEMENT*

THE STRI will hold three courses at Bingley in the Autumn on the theory and practice of turf construction and management.

The courses last five days (Monday to Friday) and will cover soils, grasses, turf diseases and pests, drainage, watering, fertilizers and machinery.

The commencing dates are 19th and 26th October and 2nd November. The fee is £94 for members and £115 for non-members plus VAT (exclusive of accommodation and meals).

For further details from the Secretary, Sports Turf Research Institute, Bingley, West Yorkshire. BD16 1AU Telephone Bradford (0274) 565131



THE verb 'to botanise' is not one that comes to mind readily, yet one hundred years ago botany was a favourite pastime for millions of people of all ages and classes.

As we might suppose from the name, it consisted of trips to the countryside to look at and collect specimens from the large variety of flora to be found almost anywhere in the country.

Actually, it was a good deal more than that, for it was a way of breaking through the rigid moral framework of the Victorian era. It would have been deemed quite improper for young men and women to go off together unchaperoned but, by some curious quirk, it was perfectly all right if they said they were going to study nature – and, what's more, they could then bring back specimens to prove it!

Today, things have changed, and not just morally, for botany has become a somewhat neglected subject. Far fewer study it at school and university and a quick count in a bookshop will establish the fact that, on the nature-study shelves, the animal kingdom outscores the plant kingdom by about four to one. In spite of David Bellamy!

The earliest book in my library on this subject is A Manual Of Botany by Professor Balfour (1849) and it's only interest is that it demonstrates the extraordinary detail available to the student at what now seems such a far-off age. Most plants had been discovered, illustrated, described, identified and classified in every detail. There are modern books equivalent to this, such as the standard school textbook, Lowson's Botany. Any edition will do and I picked up one, from 1971, for £1.

I frequently recommend books from the New Naturalist series and a classic here is *British Plant Life* by W.B. Turrill (1953). If you want a book to help you to identity plants on site, *The Excursion Flora Of The British Isles* by Clapham, Tutin and Warburg (1959) is a shortened, portable version of their complete *Flora Of The British Isles*. Bookshops are awash with

# BOOKS ON BOTANY AND PLANT ECOLOGY

books on wild flowers – interesting to us because they are indicators of the underlying soils.

A small modern book is Longman's Illustrated Dictionary Of Botany, which is helpful in defining a number of terms we meet. There is a useful introductory section on plant ecology and the final chapters of Lowson's Botany are devoted to the same subject.

Plant ecology describes the relationship of the plant to the environment in which it lives and we enumerate the factors that influence this as being 1) climatic, 2) edaphic and 3) biotic – i.e. weather, soil and other organisms (including man).

#### By Eddie Park

Various natural processes, such as selection, adaptation, succession, etc, are made clear and there are explanations of why particular grasses invade or die out from the sward.

That simplistic description makes it sound a complicated subject, but the basic principles are quite straightforward and, without them, golf course maintenance becomes a lottery. They provide the rules that enable the greenkeeper to predict the future with some degree of confidence.

It is, however, vital to choose a book that really does stick to the basics. My favourite is *Plant Ecology* by William Leach (1933), but you might find it difficult to find, so try *Discovering Ecology* by Patrick Armstrong (1978). Both stick to simple first principles, whereas *An Introduction To Physiological Plant Ecology* by P. Bannister and similar books start to get complicated.

Once you consider plant communities and the way they change, shrink or multiply, you are into higher mathematics and I can manage very well without that!

Much more interesting is a book such as *Plant Ecology* by Hilda Drabble (1937), which looks at differing habitats, or *Introduction To Plant Ecology* by Maurice Ashby (1961), which details the effects of changes in the environment on plant populations.

We are now getting into the most important part of the subject as it affects the practical greenkeeper. The nice thing about plant ecology is that the practical man already knows many of the facts, but he is assisted to present them in a logical framework.

Books such as Practical Field Ecology by R.C. Mclean and W.R.I. Cook (1946) describe how to make observations and carry out experiments in the field.

So this is an interesting and useful subject that enables those engaged in golf course management to have a much greater chance of success in deciding both what is required and what will be the effects of their actions. A book already suggested, Wild Flowers, by John Gilmour and Max Walters (1954), in spite of its title, is one of the most pleasant introductions to plant ecology I know

For those who get hooked on the subject, let me just add a word on the general implications. Ecology is very much a modern word. It seems to crop up in politics. conservation and even religion. It also seems to be a word that can be used to prove just about anything! Most of the general principles have been around for a long time. Charles Darwin, with his theories that evolution could explain the origin of all species (including man) strengthened the beliefs of many scientists of his day.

Men were pretty sure that 'climax ecology,' as it was called, was more than just a theory. In plant terms, this

Continued on page 40



# THE BI

A big capacity, semi-mounted, PTO driven sweeper/collector, designed for professional use. Available in 4ft & 6ft working widths - the smaller version is ideal for compact tractors from 15hp+.

Suitable for grass clippings, leaves or road work, the sweeper has a hard-wearing 4 element polypropylene rotary

brush for a really clean pick-up. Fully castoring wheels allow accurate height adjustment and a universal joint in the linkage frame gives free fore/aft and lateral movement so that the sweeper closely follows

undulating ground - ideal for Golf Course fairways. A simple cord pull actuated tripping mechanism operated from the tractor seat tips the well balanced hopper forward to discharge the load. It then automatically returns to the working

position. One of a range of robust and reliable machines from Wessex, many designed specifically for compact tractors, including Rotary and Flail Mowers, Pick-up Mowers, Hydraulic Tipping Trailers, Fertiliser Spreaders, Seedbed Harrows, and Rotary Tillers.

See your nearest Wessex dealer or complete the coupon.

**STAND B14/18** at WINDSOR

Trading Estate Oakhanger Road, Bordon Hampshire GU35 9HH

Telephone: 042 03 8111

Please send me details	I am interested in y	our (tick boxes	)
on the Sweeper —	full range of .		

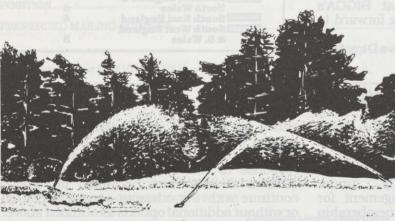
Collector equipment Name:

Address:

Tel:

# Watermation

Do you think of Watermation as Europe's leading TURF IRRIGATION CONTRACTOR - the one with systems in all the best places?





Did you also know we are now Europe's leading MANUFACTURER OF QUALITY TURF IRRIGATION EQUIPMENT?

Right again — WE ARE

No need to look any further, we can provide you with everything you need for your turf irrigation. See our new quality equipment on Stand G23-25 at the I.O.G. Show at Windsor, or telephone us on Woking (04862) 70303 or 21009 for our catalogue.

Watermation Ltd., Monument Way E., Woking, Surrey GU215LY. Telex: 859224 FLEXON G. Tel: Woking (04862) 70303/21009 or Stirling (0786) 70252, or Dublin (1) 789501 or Paris (1) 47 06 04 19.

continued from page 3

I understand that the position relating to the production of the newsletter is not clear throughout the regions. The magazine subcommittee has decided that the long term aim will be the production of a monthly newsletter. The achievement of this aim will depend on the submission of sufficient material and here the onus clearly lies with the branch secretaries. At present, it is only possible to produce a newsletter at two monthly intervals, and, given enough material, the next newsletter will appear in the October issue of the magazine. Again, there seems to be some misunderstanding on the use of a separate newsletter within the magazine. Essentially, the Board of Management feels that the newsletter can be used in a positive manner to communicate on matters and issues which directly affect the membership but which are not applicable to the wider readership which 'the Golf Course' will be seeking to reach and influence on greenkeeping matters in general. As an example, details of next year's national tournament would be more appropriate for the Newsletter rather than the magazine.

I am receiving many requests to attend branch meetings/seminars and it is my intention to get around and meet members as soon as possible. In the next few months it will not be possible to accept every invitation, though, over a period of time, I will get to all branches! For the next six months or so I think it important that I listen to members' views, aspirations and concerns, and these can form a future basis for discussion at Board level as well as representing a learning process for myself. My approach during this period will be informal as there will be many formal occasions in the future when I will need to project the Association's aims and policies, hopefully from a position of strength based on an understanding of the issues concerning

greenkeepers.

Finally I will be attending the Institute of Groundsmanship's show at Windsor and will be there on 15th & 16th September at BIGGA's official stand and show vehicle. I look forward to meeting as many of you as possible.

**Neil Thomas** 

**Executive Director** 



B.I.G.G.A. Region	ns & Branches
Region	No. Branches
Scotland	5
Northern England	5
Midland, England	&c
North Wales	4
South East Englar South West Englar	nd 8
South West Englan	nd
& S. Wales	3

#### **BIGGA - LEGAL BENEFITS SCHEME**

DISCUSSIONS have been held with the Legal Protection Group with regard to a Legal Benefits Scheme for members, which is underwritten at Lloyds of London. There are a number of elements to the scheme which are currently under consideration by the Board of Management for possible inclusion in the 1988 membership package. Details will be made available at a later date when firm decisions have been taken on the viability of the various sections in the scheme.

However, I have negotiated a special arrangement whereby all paid-up full members as at 30th September 1987 will have access to a 24 hour legal advisory service on any subject whether this relates to their employment or any other personal matter. Members will be issued with a special card with applicable telephone numbers for use

either in Scotland or England/Wales and this service will then operate from 1st October - 31st December. By the end of December, members' response to this service will be known and for 1988 a decision can be taken on whether to continue with the advisory service and if so with or without additional options as outlined above.

The issue of cards, as with membership cards, will be dependent on the progress made in compiling an accurate membership list but any members not in possession of the special card at 1st October and wishing to make immediate use of the service should contact me personally in order that the matter can be actioned. I would be pleased to hear from members with their views after making use of this service.

**Neil Thomas** 

**Executive Director** 

# <u>BIGGA - MEMBERSHIP</u> **NFORMATION**

THE Board of Management has now given further consideration to the membership categories There will be two other membership categories in addition to the full

greenkeeping member category. Details are as follows:-

Initially, membership will run for a 15 month period from (1) Trade Membership. 1st October 1987 - 31st December 1988. Membership will be on an individual and not a group basis. The cost of membership for the period indicated will be £50 per member plus VAT = £57.50. This fee will include the cost of subscription to the Association's official magazine 'the

Golf Course' throughout the period.

(2) Associate Membership. This membership is available to those whose circumstances are such that they do not qualify for membership in either the full or trade categories. Membership will be on an individual and not a group basis and the initial membership period will be the 15 months from 1st October 1987 - 31st December 1988. The cost of membership for this period will be £35 per member plus VAT = £40.25. This fee will include the cost of subscription to the Association's official magazine 'the Golf Course' throughout the period.

N.B. A number of prospective applicants for trade and associate membership have already, in registering their interest, submitted payment in the sum of £17.25 inclusive of VAT. In such cases, trade and associate members should now submit the appropriate balance of payment, i.e. £40.25 for trade membership or £23 for associate membership, and confirm their previous

registration and payment.

A membership form for all categories is set out below.

**Neil Thomas Executive Director** 

#### BRITISH AND INTERNATIONAL GOLF GREENKEEPERS ASSOCIATION

#### APPLICATION FOR MEMBERSHIP

#### **FULL GREENKEEPING MEMBER**

NAME IN FULL	CLUB
POSITION	
PREFERRED MAILING ADDRESS	instraction of the second
I attach my cheque for £15 (plus VAT) = £17.25	SIGNED:
TRADE MEMBER	
NAME IN FULL	COMPANY
POSITION	the present dayer will
PREFERRED MAILING ADDRESS	os man and and a so topethet
I attach my cheque for £50 (plus VAT) = £57.50	SIGNED:
ASSOCIATE MEMBER	
NAME IN FULL	— POSITION —
PREFERRED MAILING ADDRESS	ene musical surface see Migdle emplificacy of the artists of the de-
I attach my cheque for £35 (plus VAT) = £40.25	SIGNED:

Return to: The Executive Director, BIGGA, Sports TurfResearch Institute, Bingley, West Yorkshire, BD16 1AU

### ABROAD on the Golf Course



# CORFU GOLF CLUB

in the beautiful Ropa Valley

CORFU golf club must be one of the most under-rated courses in the Mediterranean.

Designed by Donald Harradine and opened in 1972, it remains largely undiscovered by comparison with Spanish or Portuguese courses.

Today however, things are set to change. The club has a thriving amateur week each May, this year's championship having been won by the editor of Golf Monthly, Malcolm Campbell.

The course is open for seven months of the year, April/ October.

The club and course are run by David Crawley, a PGA qualified professional who learnt his trade at Lindrick and who had already spent many years teaching on the continent before taking up his present post in 1984.

At that time the course was in a poor state. For the first ten years it was maintained very well by an English green-keeper, then an inexperienced man took over. The result was overwatering to a phenomenal extent. The daily

routine was "water the greens till they flood, twice a day" receiving up to 40 times more water than was necessary. By 1984 there was stinking thatch and an invasion of crabgrass.

That summer Howard Swan, on a family holiday in Corfu, called in to play a round with a friend. He had heard various stories about the state of the course and was very disappointed with what he found. He had previously played and enjoyed the course in 1978, but by this time course had deteriorated to such an extent he felt compelled to talk to David Crawley. Much to his surprise and delight, David asked if anything could be done to reverse the downward trend. The answer was "yes" and so together they set about the task of improvement.

The unqualified "head greenkeeper" had by this time departed, so with five Greeks out on the course, the two began analysing the problems, trying to come up with a sensible five year

programme of work.

Three years on and course has improved out of all recognition. Spiro (all Corflots are called Spiro after their Patron Saint. St. Spirydon) is now the course foreman, under direction from David Crawley with Howard making three visits a year to offer advice update and programme.

The original problems of the course were primarily with the greens. They were lush and highly receptive to any shot - good or bad. They were almost pure Penncross bent, an grass excellent Corfu's climate if not elsewhere. It wasn't surprising that having been so drastically overwatered for years, when a ball struck the surface it almost disappeared and then popped up again without seeming to leave pitch mark.

Walking across the greens had certain similarities to trampolining, the putting surfaces having the same properties as jelly. There was, in places, up to four inches of stinking

thatch. So much for overwatering and lack of aeration!

The first part of the programme was to tackle the irrigation system and its operation. Needless to say it was twelve years, old, indifferently designed and not functioning properly. The sprinkler spacing was wrong, the inconsistencies producing localised high precipitation and spots. Ideal conditions in fact, to produce thatch in an already thatch producing grass species.

The pop-ups themwere working properly, so a phased replacement was introduced. Four or five Toro 650 heads were installed at each So far, six green. greens have been completed and now have the basis for correct irrigation. A full set of replacements should be completed by next year.

A further improvement has been the drilling of several bore holes. Not only has this guaranteed water supply, which had been in the past cut off by the local village



when levels were low, but the lakes on the course can now be maintained at the proper level, adding to the beauty of the course.

The course has already improved significantly, which is due to the drying out process. This, combinwith intensive verticutting and aeration, has reduced the four inches of thatch down to a more manageable inch. The greens are certainly truer and faster than were and they are receptive to only the well struck shot.

The previous aeration programme had been virtually non-existent. The Greek staff were that if they scarified during the summer months the grass would die. So only in October, when all the golfers had gone, did they verticut.

One can only imagine how much grass they removed!

As part of the reclamation the staff were asked to verticut one of greens during August, to prove the benefits. To their credit they did as they were bidden and then stayed up all night convinced that by dawn they would witness green's demise. Suffice to say the greens are

now verticut once a week and are better in every respect.

Greens obviously were not the only area for Nutrition to concern. all the grassed areas was always a mystery. Olive skins, chicken manure and in organic compounds in no particular sequence had been administered. David and Howard have taken three years to discover the problems and what ascertain had been going on. Now a balanced regime is in operation.

So now, in 1987, with the basics right and improvements made, the team have a chance tackle some cosmetic alterations.

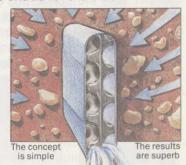
This spring, again much to the Greek crew's concern, contour the mowing of fairways began. By turn of the simple tractor steering the wheel, the motorway look disappeared and the golfing strategy No doubt changed. Messrs Crawley and Swan enjoyed their chance to be golf ation a large improvement was achieved.

firmly on the path to and lightweight drains recovery.



There's no bigger headache than poor drainage for course architects, but a greenkeeper. The effects are disastrous for by this simple oper- members. The cure can be chaos for the club

But now Fin Drains provide the scientific Certainly Corfu is a solution for every part of beautiful place to play the golf course. Proved all golf and the course is overthe world, these slim take away water faster than pipes can. They require less excavation, back-fill and spoil removal. So neat and simple, there's virtually no disruption to play.



Why not send for details of our Free Drainage Survey and how you can get FREE SPONSORSHIP for one of your monthly medal competitions.

Phone now for FREE SURVEY AND FREE SPONSORSHIP details!

'PAR FOR THE COURSE'

**#**BTR LANDSCAPER

PO Box 3, Centurion Way, Farington, Preston, Lancashire PR5 2RE Tel: 0772-421711. Telex: 67530 BTRLEY.



A view of Corfu's magnificent coastline

# TREES on the golf course

#### By TONY GENTIL

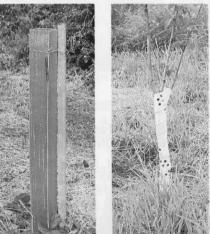
IN my previous article in this series I stressed the importance of protecting the root systems of trees that are being transplanted. From this I think you'll appreciate that when it comes to actually planting a tree, the preparation of the hole that the root system will occupy also requires considerable care.

It doesn't matter whether the tree is a small forest transplant or a large standard, its root system must be able to fit comfortably into the hole you've excavated. Furthermore the soil backfill must have a fine enough tilth to make intimate contact with as many root hairs as possible. This is because the root hairs extract the moisture that the tree needs from the thin layer held round each soil particle.

The techniques used for planting the main types of tree varies slightly.

FOREST TRANSPLANTS are small trees, two or three years old and perhaps six inches tall. They have the smallest root systems of all the tree types and because of this they are often planted using a high speed technique.

The method used is to first skim the surface vegetation off with a spade to expose the soil over an area of approximately a square foot. Then two vertical cuts are made into the bare soil with a spade. The second of these cuts crosses the end of the first one at 90 to form a 'T' shape. The planter doesn't take the spade out of the ground after the second cut. Instead he levers back on the handle of the spade, pressing it from the vertical towards the



A whip planted in a Tuley Tube (left) and protected by a spiral rabbit guard.

horizontal. This has the effect of forcing the 'T' cut upwards and open, so exposing a slit. The roots of a forest transplant are next placed into the slit and the spade is lifted back up to the vertical and This traps the tree's removed. roots in the soil and holds the top in place.

The millions of conifers growing in upland Britain are testimony to the fact that this technique works. I'm not too happy though that this method deals kindly enough with a tree's root system. On the smaller scale of golf course planting, I think you'll get better results this way.

First skim off the vegetation to expose the soil but then dig out a hole of about one cubic foot in volume. Chop the excavated soil down to a fine tilth and then plant the tree, working the fine soil round its roots. Finally consolidate the backfill by pressing it down with the heel of your boot.

Forest transplants planted amongst vigorous competing vegetation do have difficulty in getting established.

A new technique has recently been developed to help small trees through the difficult establishment period. The new method is to plant the tree, as I've already described, and then to fit a rigid plastic tube vertically over it. These tubes are known as "Tuley Tubes" or "Tree Shelters". They greenhouse-like provide a microclimate round the tree inside them. This enables the tree to grow vertically at three or four times the speed it would do so without their protection. They also act as rabbit guards and keep external vegetation at bay.

Tree Shelters have become very popular and you'll see these square, brown, plastic statues springing up all over countryside. Give them a try by all means, but don't expect them to be a panacea for bad planting. Success still depends on keeping the root system happy all the way through the transplanting process.

WHIPS are small trees with a single whip-like stem. Generally they have branches all the way to the ground. They are, in my opinion, the best size of tree for planting on golf courses. This is because they are tall enough to hold their against own encroachment from surrounding vegetation and yet still have a root system small enough to with trauma cope the transplanting.

Whips are planted by clearing the ground of vegetation over an area of, say, a square yard, and then excavating a hole big enough for the root system. Backfilling and consolidation is the same as for

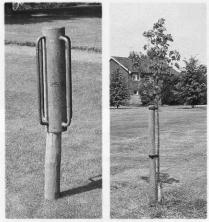


forest transplants. You shouldn't need to stake whips except perhaps on very windy coastal sites. If you need to stake whips use one inch square hardwood stakes driven into the ground on the windward side of the tree. Tie the tree to its stake with soft string.

It can be very tempting, when planting whips, to treat them as if they were forest transplants. It is fatal to try and stuff their root systems into tiny holes. Each whip needs to be treated as an individual and given a planting hole which will accommodate its entire root system properly. If you curl the roots round to make them fit into a hole that's too small, they'll grow permanently like that. You'll reap the harvest of such folly when they blow over in later life.

Tree shelters are not normally used with whips because of the difficulty of fitting the narrow tubes over the side branches of the whips. It is quite common practice, however, to put plastic, spiral, rabbit guards round the stems of whips. Unless you fit them carefully these guards won't cover all the vulnerable areas of bark. They can also damage the trees if you don't check them regularly.

Where rabbits are a problem I think it's better to plant in groups and then fence off the entire area with rabbit-proof netting.



A drivall (left) and traditional staking

STANDARDS. These trees, with a trunk clear of branches for six feet are the largest that you are likely to plant. Standards look rather formal and artificial and are best planted in formal, rather than



A standard staked with a short 3 foot

semi-wild areas. They have the biggest root systems and so need the biggest planting holes. They also need staking.

The technique of planting them is to remove the surface vegetation over an area of a square yard and then excavate a hole three inches square by two feet deep.

If you are planting in turf, then I would suggest that you remove the turf carefully using a half-moon and turfing-iron. This will ensure that the perimeter of the hole is neat and square, matching the formality of the standard.

When you dig the soil out of the planting hole I don't think it's necessary to try and keep the topsoil and sub-soil separate. I know that all the text books tell you to do so but in practice it is a bit unrealistic. When the hole is big enough to take the root system of the tree that you are planting, fork the bottom over to improve the drainage and break up any pan.

Next, place the tree in the hole and work out the best position to insert the stake. Basically you want the stake somewhere on the windward side in a position where it can fit between the fingers of the root system.

If you are using the traditional eight foot stake, remove the tree and drive the stake into the ground using a drivall. This is a steel cylinder, sealed at the top, which is used for pile driving fencing and tree stakes. It is a much safer weapon than a mallet used off a pair of step ladders!

With the stake secure, put the tree in position. The trunk should be vertical, about two inches away

from the stake so that it doesn't chafe. You can now backfill the hole making sure the soil has been broken down to a fine crumb size.

After replacing every two or three shovelfuls of soil, shake the tree up and down to work the soil round the root system. When you've covered the root system consolidate the soil with the heel of your boot. Finish off the backfilling and give the soil a final firming.

The tree is now planted and can be tied to the stake. With an eight foot stake you'll need two ties - one just below the top of the stake and the other halfway down the trunk.

Finish the job off by pricking the surface of the soil over to relieve any capping and help rainwater penetration.

You'll notice that I haven't suggested adding anything to the soil in the planting pit. No well-rotted manure, peat, tree planting compound or fertilizer, not even the turf first taken off to dig the hole. Quite honestly, on golf course soils your trees will grow just as well without any additives. In fact, recent scientific research has proved that trees grow just as well without fertilisers or soil conditioners.

The things which do matter are to protect the root hairs all the time the tree is out of the ground and also to keep the area round the base of the newly planted tree free of competition from other vegetation.

Strange as it may seem, many trees are killed each year by misguided kindness. Here's how it happens. Tree pits are excavated in fairly heavy soils, the excavated material is carted off site and the hole backfilled with a high quality compost. When it rains the hole becomes a sump for the less permeable soil surrounding it and the root system is drowned. If you put back only what you dig out this is less likely to happen.

TREES...

Continued on page 40



# Around in one at St. Andrews







t takes a real professional to bring out the best in any championship course. That's why St Andrews, the home of golf, and many other Championship courses choose RANSOMES—grass machinery for the professional.

Take the RANSOMES MOTOR 180 for instance, it's ideal for tee and green surrounds with outstanding manoeuvrability and bank performance.

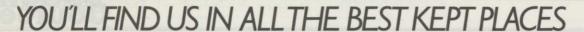
At St Andrews they've found that it also does a great job on the fairways too, where its floating head cutting units make a superb finish.

So from the first tee to the 18th green it's got to be RANSOMES—the best of British mowers.

Ransomes Sims & Jefferies PLC Nacton Works, Ipswich, IP3 9QG. Telephone: Ipswich (0473) 270000 Telex: 98174 Fax: 270030.









# NOTEBOOK ...

#### Niche for new grader

GRADEALL International Ltd of Dungannon, Co. Tyrone, have been associated with the screening and grading industry for over nine years. With this wealth of experience, coupled to the feedback from customers over the years, the company recognised a niche in the market for a compact grader suited to the needs of turf surfaces.

The Beaver is highly portable, easily transported by a landrover. It has a 2 T capacity feed hopper with direct feed as standard, although belt feed or tray feed options are available for variable applications.

The Beaver is compact, yet with a robust design to withstand years of abuse. It is self contained using a Diesel electric or Diesel hydraulic power units although the unit is easily adaptable to mains power.



The unit's compact features with its aggressive set of shredders and high frequency screenbox offers the greenkeeper the ultimate in producing the highest quality top dressing possible.

#### Save your skin!

OCCUPATIONAL dermatitis is the commonest of all health problems caused by work activities, accounting for the majority of compensation claims made through the DHSS.

But few appreciate it can become serious enough to cause permanent disablement. A national awareness campaign on occupational dermatitis has been launched by the Health and Safety

Executive's Employment Medical Advisory Service to focus attention on the problem.

Many substances commonly used at work can irritate or sensitise the skin with unpleasant consequences.

As soon as any rash develops it is vital that medical help be sought immediately.

Copies of *Save your Skin* leaflets may be obtained by telephoning 051 951 4545

#### New irrigation manual

THE new 4th edition *Turf Irrigation Manual* is a major update and expansion of this popular reference work, designed for engineers, architects, landscape architects and contractors. Published in the USA, over 25,000 copies of prior editions have been sold.

Based on years of research, field experience and accumulated techniques, the turf irrigation manual utilizes over 250 illustrations to present a step-by-step approach to the design process including: equipment, basic hydraulics, sprinkler performance, plot plans, head layout, pipe sizing and zoning.



New material added to the 1987 edition includes: (1) design criteria for water conservation; (2) soil/water/plant relationships; (3) special considerations for shrub and ground cover watering; (4) evaluation/examples of computeraided design; and (5) simplified calculator program for determining pressure losses in piping.

Course



HUXLEYS GRASS MACHINERY ON TOP, ON TURF.

We'll give you the cutting edge in the rough and on the smooth.

Call us today for the full facts on Huxley Hydraulic Reelmowers for compact and smaller-sized tractors and the Cushman Front Line range of ride-on rotary mowers.

HUXLEYS GRASS MACHINERY THE DEAN, NEW ALRESFORD, HANTS SO24 9BL, ENGLAND. Tel: 0962 73 3222 Telex: 894426 Fax: 0962 73 4702



### "FENDRESS"

THE TRULY NATIONAL TURF DRESSING AS SUPPLIED TO MANY CHAMPIONSHIP COURSES

A Superior Top Dressing, using soils with a low clay and silt content, carefully blended with Fenland Peat and Lime Free Silica Sand, shredded and sieved. Ready for immediate application to golf/bowling greens.

Save purchasing expensive equipment, which stands idle for much of the year. Also high labour costs and problems of finding suitable ingredients of constant quality.

BULK DELIVERIES TO ALL PARTS OF THE UK IN 10, 15, 20, 25 TONNE LOADS. CUSTOMERS IN BELFAST, ABERDEEN, PLYMOUTH, EAST ANGLIA, ETC.

PLEASE REMEMBER, THERE IS ONLY ONE TRUE FENDRESS. WHICH IS A REGISTERED TRADEMARK. BEWARE OF IMITATIONS.

Pre-Packed supplies available. Special mixes to your specification prepared. Also, Screened Sedge Peat ("Fenpeat") in bulk. Lime Free Sands, White or Yellow. Screened Loam, etc.

Please telephone T.J. Banks for quotations. You will be surprised by our competitive prices.



Contact: Fen Turf Dressings Ltd., Suite 3, Angel Court, Dairy Yard, High Street, Market Harborough, Leics LE16 7NL. Tel: Market Harborough (0858) 64346.



# ASHFORD (KENT) GOLF CLUB

invite applications for the post of

# **COURSE MANAGER**

An attractive remuneration package is offered to an experienced manager of staff who has a thorough knowledge of course management and the upkeep of comprehensive course machinery. Apply in writing to:-

J.P.Thomas,
Secretary,
Ashford (Kent) Golf Club,
Sandyhurst Lane,
Ashford,
Kent.
TN25 4NT
Tel: Ashford 22655



Whatever your watering requirements, you can be sure that Turf Irrigation Services can help you. Budget concious system design, comprehensive choice of

Turf

equipment, efficient, professional installation work or dependable maintenance services, the choice is yours...

SOLVE YOUR PROBLEMS! CONTACT...

Irrigatien
Services GLimited



'MEET ME ON THE TORO STAND -7-10, ROW F 10G, WINDSOR' Says Robin Hume

Betchton, Sandbach, Cheshire, CW11 0TS. Telephone 04775 255/6 Telex 367122 TIS G

### ...NOTEBOOK

#### Open Sesame!

EVERY time Tony Cuthbert drove to or from his mid Wales farmhouse, he had to get out of his car and open and close three farm gates.

This performance became such a chore that he used his electonics skills to devise the simple but ingenious Autogate, which works the gates automatically and is powered from a simple 12 volt car battery.

The gate swings into action at the touch of a button - either on a hand transmitter with a range of some 30 metres, or from a button mounted on the gate post.

Now the product is being made available by Wolseley, the electric fencing specialists, for use anywhere where automatically opening and closing gates could be a benefit.

Sales manager Eddy Palin sees a

major benefit being quick and easy installation of the Autogate. There is no expensive and time-consuming mains power to be dug in - once the gate, posts, and opening mechanism are fitted and wired to the battery, it is ready to go.

A simple built-in timing device vatries the gap between automatic opening and closing from a few seconds to three minutes.

An automatic cut-out prevents the gate moving if it hits an obstruction, thus preventing damage to the Autogate or the object, whether it's a cow or a car.

The gate takes so little power that a single car battery will endure three months' heavy use before it needs recharging. As an option, a gate-mounted solar panel will keep it contrantly charged up.

More details may be obtained by phoning Wolseley on (0584) 3131.

HA 1384

#### Seed Here!

BRITISH Seed Houses Limited have announced that their 1987 autumn catalogue, covering amenity grass seed mixtures for golf courses, is now available. Phone BSH on Warrington (0925) 54411 if you would like a copy.

#### South Atlantic success

FERTILISER specialist Vitax Limited has just completed its second major export order to the Falkland Islands.

It is just over a year since managing director Trevor Martin led a management buy-out of Vitax from giant Steetley organisation and in that time he has built-up profitable export markets in Europe, Israel and Australia. Vitax can be contacted on Burscough (0704) 893311

Course



# LONGLIFE EFFECTIVE

# AND EFFICIENT!

SAI 'Longlife' saves you time, money and effort.
Six of the 'Longlife' turf foods contain Didin® for a longer
more even growth response with improved colour.

'Longlife'—the all year all turf treatment—a range of nine turf foods designed to suit all grass in every situation.

Longlife' is a trade mark of Scottish Agricultural Industries PLC. Didin  $\,$  is a trade mark of SKW Trostberg AG.



The all year all turf treatment

Contact the SAI Information Line: Scottish Agricultural Industries PLC, Livingston, West Lothian, EH54 5QW. Tel: 0506 39281.



THE PROFESSIONAL CHOICE...
FOR CONTROL AND CONVENIENCE

CASTAWAY PLUS is a trade mark of May & Baker Ltd.
May & Baker Ltd., Regent House, Hubert Road, Brentwood CM14 4TZ.

CASTAWAY PLUS CONTAINS THIOPHANATE-METHYL AND LINDANE. READ THE LABEL BEFORE YOU BUY: USE PESTICIDES SAFELY.

### ...NOTEBOOK

#### A Real Wizz

A.F. Trenchers is offering the Wizz Wheel for high-speed sand-slitting. Suitable for tractors of between 60 and 120hp with category two and three linkages, the Wizz Wheel can cut trenches 50mm wide speeds of over 2,000 metres/hour depending on tractor hp and soil conditions.

Adjustable disc coulters pre-cut the turf ahead of the digging wheel to ensure a clean trench edge, and a 'floating' crumber cleans the bottom of the trench behind the digging wheel. Maximum depth of cut is 510mm, maximum width, 125mm.

For efficient soil collection, the digging wheel is totally enclosed above ground by a chute which is made in two sliding halves for depth adjustment. This allows accurate hydraulic laser grade control to be fitted to the rear half as an optional extra and ensures that the front half maintains constant contact with the ground.

side outlet and dumped to a height



of two metres by a soil conveyor, hydraulically driven by the tractor. For road transport, the conveyor can be raised and locked in the vertical position beside the digging wheel.

Approximate cost is £7,500 (plus VAT), with clean-up chute and highlevel conveyor. Full details from A.F.Trenchers on Colchester

#### **Export honour**

SOME 370 employees, together with local dignitaries and representatives from overseas distributors, attended the presentation ceremony, held at Ransomes' Nacton Works in Ipswich, of the Queen's Award for Export Achievement to the company's grass machinery division.

The Award was presented to Ransomes' group chief executive Bob Dodsworth by the Vice Lord Lieutenant for Suffolk, Major General John Dye CBE MC DL. Celebrating its 200th Anniversary in two years' time, Ransomes is the largest manufacturer in Europe of grass cutting machinery for the professional user and ranks among the top three in the world.

More than half of the grass machinery division's output was exported to over 60 countries around the world last year alone. Destinations included seemingly unlikely places such as Iceland, Saudi Arabia and Nepal. Much of the overseas trade is with other EEC countries. But exporting is nothing new to Ransomes. Its first overseas sales were made as far back as 1810.

It was during the 19602 the company introduced two new types of mowers that were to lead the way to today's high output, cost effective machines.

# Course

#### Quick work

THE Toro Lawn Vacuum and Leaf Blower enables you to make quick work of outdoor clean up. It's two machines in one, 30ins wide vacuum for lawns, paths, driveways and a blower for leaves and other litter.

The Vacuum head can adjust to seven positions so clean up is swift, easy and very efficient. It is

self-propelled by 5HP Brigg's and Stratton engine and has a large capacity bag.

An optional vacuum hose is available for cleaning up under shrubs and hedgerows.

More information is available from: Lely (UK) Ltd, Station Road, St. Neots, Huntiongdon, Cambs. Telephone (0480) 76971



HURST GROVE LONDON SE22 9AQ 01-693 6287

BLACK FENSOIL, SCREENED SEDGE PEAT TOP DRESSINGS SILICA SANDS,

BANKS HORTICULTURAL PRODUCTS LTD. 0858 64346



# A NEW NAME JOINS

# THE LONGLIFE RANGE!

Finegreen 'N' is the new "no phosphate" treatment for spring and summer use on all fine turf. Finegreen 'N' contains Didin® for a longer more even growth response with improved colour.

'Longlife' is a trade mark of Scottish Agricultural Industries PLC. Didin' is a trade mark of SKW Trostberg AG.

# Longlife

The all year all turf treatment

Contact the SAI Information Line: Scottish Agricultural Industries PLC, Livingston, West Lothian, EH54 5QW. Tel: 0506 39281.



LURMARK PTP 16 KNAPSACK SPRAYER
Manufactured by LURMARK LTD., Cambridge, England.
May & Baker Ltd., Regent House, Hubert Road, Brentwood CM14 4TZ.



HOLLOW

- \* Simple to operate
- \* Very ruggedly built
- \* Competitively priced

For fine turf work ask to see

THE GREENKEEPER

with its close pattern of holes and the widest range of heads and tines than any other machine of its kind

For course turf

THE CONTRACTOR

is a must for speed on the outfields, football pitches etc...

We are proud to announce the NEW model for mounting on a compact tractor

See the full range of machines at the WINDSOR I.O.G. EXHIBITION STAND Q.39-40

## lawnMower

SPECIALISTS LTI

SANDY LANE, LOWER DARWEN, LANCASHIRE TEL BLACKBURN (0254) 672424

Please send me details of the Multicore range.

Name ......

Company ......

Address

## ...NOTEBOOK

#### Read all about it!

IN an attempt to make golf club officials mush more aware of the risk involved in choosing course watering systems simply on price, Toro Irrigation Limited have just published a twelve page booklet on the subject.

Labelled the *Thinking Man's Guide to Golf Course Watering* the booklet urges golf club secretaries and greens committees to consider the technical implications of each automatic watering system design put before them.

"In my experience, it is very evident that many clubs do not fully understand what they are shown on paper", says Peter Roberts, general manager of Toro Irrigation.

"Even more important" he says, is the fact that greens committees do not generally invite the people who designed the system to meet them and explain the technicalities behind the proposals".

"Club officials seem to think they are looking at like for like when considering various watering system designs, but, in my experience, they are not!"

Copies of the new booklet have been sent to club secretaries throughout the country and additional copies are available through Toro or their regional destributor and dealer network.

Alternatively, write to: Toro Irrigation Ltd., Unit 7, Millstream Trading Estate, Christchurch Road, Ringwood, Hampshire. BH24 35D.

#### Tyred out!

A PORTABLE, pneumatic tyre bead breaker from Denmark is being introduced by Axeline Eastern Limited of Boston, Lincs.

The Kema Bead Breaker is both small, 13.4" wide x 10" high (340mm x 255mm), and light, weighing 22lb (10kg). It can be used to loosen agricultural tyres, earthmover tyres, forklift tyres, implement tyres, tractor tyres and truck tyres in seconds.

The Kema Bead Breaker is gentle to both tyres and wheels despite developing up to just over a ton of thrust (2300kg). It requires just 16 litres of compressed air to operate and could even work off the air in a spare wheel.

A wide range of specialist tyres and wheels for machinery and equipment for the amenity, landscape and turf markets is also available.

Axeline Eastern staff will be pleased to advise on any 'turf' tyre or wheel problem - telephone 020579 - 531.

#### New team for Rufford

RUFFORD Top-Dress Supplies, based at Rufford near Southport, who burst on the Top-Dress market late last year, have recently announced a list of distributors and agents appointed to make their product throughout the U.K.

For further details telephone Rufford on (0704) 821314.

# For Multi-Purpose High Speed Trenchers Choose AFT Our range of seven trenchers cut from 5 cm to 45 cm wide for all your cables, water pipes and sportshield drainage requirements with unrivalled performance and cost effectiveness. Soil collection systems and laser assisted grading are available on some models. With over 20 years manufacturing experience, a first class after sales service and a convenient self-drive hire fleet we offer a unique trenching service that is second to none. Write or telephone for details today. A. F. Trenchers Ltd., Gosbecks Road, Colchester, CO2 9JS Trelephone 2006 44411

#### **Rocol Makes its Mark**

A QUICK, easy, simple and highly visible line marking system is available from Rocol Ltd - Rocol Easyline. A range of eight paints, packed in giant 30oz spray cans speeds up marking out of all surfaces.

Rocol Pitchliner, when used in conjunction with the Easyline paint, allows hard surfaces, grass and synthetic surfaces to be efficiently marked without the mess and time involved with conventional line painting methods.

More information can be obtained from the publicity department at Rocol Limited, Rocol House, Swillington, Leeds. LS26 8BS



## BLACK FEN TOPSOIL

Tel: G. J. Moyses (0733) 69447



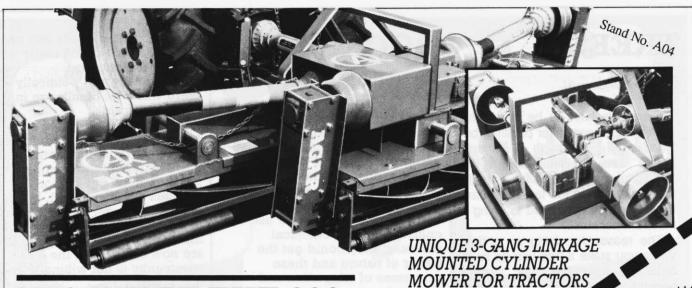
#### **Right Farm Equipment**

New and Second-hand Tractors and Grass Cutting Machinery

Massey Ferguson 35x £1200 plus VAT

Book now for the important winter service of your hard worked tractorsand grass cutting machinery.

Tel: 042 878 532



# **IT'S WHAT THE 220**

NO BELTS ● NO CHAINS ● NO HYDRAULICS

An end to fiddling belt and chain adjustments! Time-consuming maintenance! Costly repairs! The highly efficient 220 cuts all that out. It gives an 84" cut. Cylinder can be removed in one minute for narrow openings. Quick attach/detach releases tractor for

other duties. Folding mainframe.
Ring for demonstration of the REVOLUTIONARY
Agar 220.

15BHP & ABOVE

AGAR EQUIPMENT. Unit H7/9. Blackpole Trading Estate, Worcester, Worcestershire, WR3 8SG. Tel: 0905 52717

(3-gang 9/87GK)

Address:

Tel:







# THE LONGLIFE SECRET

# IS AVAILABLE HERE AND NOW!

SAI's 'Longlife' range of nine integrated turf care treatments-3 Fine Turf, 3 Groundsman, Finegreen 'N', Preseeder, and Plus-are available throughout the United Kingdom.

For details of your local stockist contact:

Scottish Agricultural Industries PLC, Livingston, West Lothian, EH54 5QW. Tel: 0506 39281.

ICI Professional Products, Woolmead Walk, Farnham, Surrey, GU9 7UB. Tel: 0252 724525.

Chipman Limited, Station Yard, Horsham, Sussex, RH12 2NR. Tel: 0403 60341.



The all year all turf treatment



SERITOX is a trade mark of May & Baker Ltd. May & Baker Ltd., Regent House, Hubert Road, Brentwood CM14 4TZ.

> SERITOX TURF CONTAINS DICHLORPROP AND MCPA READ THE LABEL BEFORE YOU BUY: USE PESTICIDES SAFELY.

## TREES...

Continued from page 31

Standards have to be staked for the first few years after planting, but what is the best length of stake to I've explained about the traditional method of using an eight foot stake, but in the last few years the fashion has changed to using a much shorter stake.

The reason for doing so is this. When you stake a tree you do so in order to help the root system become established. Provided that the roots don't move about, the rest of the tree above the ground can look after itself. In fact the trunk benefits from swaying about in the This is because a tree produces strengthening wood in response to the forces acting upon When a tree is supported but doesn't build up the strength it needs to withstand the wind. As a consequence. when the breaks or is removed, the trunk can't cope with the real conditions of the site and may be damaged by austing winds.

A standard, staked with a short three foot stake, will develop into a stronger three than one staked in the traditional way. There are also other benefits. Short stakes are cheaper than long ones and are much easier to drive into the

around.

Just a final point about tree stakes. They are only needed to do their job for the first few years after tree Therefore, there is no planting. need to buy the expensive ones treated with wood preservative. You don't want them to be rot-proof and last for ever. It is much better that they rot off at ground level and give the tree a chance to learn to stand on its own feet.

So I think that you'll see from this most expensive specification for tree planting isn't necessarily the best. Use short, untreated stakes and no soil additives and your trees will thank you for it.

The next article in this series is concerned with tree maintenance.

## BOOKS...

Continued from page 24

simply stated that nature would select the plants best fitted to survive in any particular habitat under the influence of the climatic, edaphic and biotic factors that were present.

Then men started to get clever and believed that, by the use of cultivational and chemical measues, they could get the better of nature and these processes of adaptation and succession.

Nature was not slow to strike back and show that She still had a few tricks up her sleeve!

The first indication lay in the disastrous dustbowls of Mid-America in the 'Thirties, when ploughing-up the prairies to give higher productivity instead gave a chance for wind to erode both

the soil and the seeds and crops therein, which didn't really stop anyone for long, for commercially and politically there was a lot of mileage in using these aids.

Once again, today, we are seeing that nature has defeated modern agricultural methods. It may be possible to eliminate the need for such old-fashioned routines as rotation and, by chemical means, to keep on top of diseases, but there is an everincreasing price to be paid. We are now seeing that the community is not willing to pay

that price.

Copying these methods on golf courses has produced horrific problems and we are all finding that we have no alternative but to return to sounder practices - not right back to pure undiluted nature, but to a more sensible balance and the science of plant ecology is essential to that process.



## RUFFORD TOP DRESS **SUPPLIES**

Britain's newest and largest producer of Top-Dress, with a distribution network throughout the United Kingdom and Europe

## MIDLAND COUNTIES

E.T. BREAKWELL LTD. 814 STRATFORD ROAD SHINLEY SOLIHULL WEST MIDLANDS B90 4DJ

021 744 4477

#### SOUTH SOUTH WEST SOUTH WALES

BROWNS OF BRISTOL 101 WHITELADIES ROAD BRISTOL BS8 2PE

0272 736831

#### LINCOLNSHIRE CAMBRIDGESHIRE NORFOLK & SUFFOLK

P. GARFORD LTD WORPLE ST. ANDREW WISBECH LINCOLNSHIRE

0945 780282

#### BEDFORDSHIRE HERTFORDSHIRE FSSEX

TOWN & COUNTRY LTD PEAR TREE FARM SPRING LANE HATEIEI D PEVEREI CHELMSFORD

0245 381219

#### SCOTLAND

SOUTER OF STIRLING **CUNNINGHAM ROAD** SPRING KERSE STIRLING SCOTLAND

0786 72141

#### AGENTS

NORTH EAST
MR DIXIE THOMPSON
LUMLEY GRANGE, GREAT LUMLEY
CHESTER LE STREET, CHESHIRE 091 388 6681

NORTH WALES

## 051 342 3376

NORTH EAST AND EUROPE CONTACT US DIRECT

RUFFORD TOP-DRESS SUPPLIES · HAMBRO HOUSE · BRADFIELD ROAD URMSTON · MANCHESTER M31 1PA · TELEPHONE: 061 747 4333



With over 160 years of experience we can match your needs any J of the week.

Range

SPORTS AND AMENITY GRASSES

W W Johnson & Son Ltd, London Road, Boston, Lincs. Tel: (0205) 65051 Branches at Haydock, Merseyside and Woodley (Berks)

## APPOINTMENTS



## AIRLINKS GOLF CLUB

Requires a

## HEAD GREENKEEPER

for our developing 18 hole course, preferably with knowledge of sand construction greens.

Must be qualified and experienced in all aspect of course maintenance.

Familiar with modern machinery and able to undertake staff supervision and training.

Salary by negotiation.

Apply in writing, with current salary details to:-

CLUB & COURSE MANAGER, AIRLINKS GOLF CLUB, SOUTHALL LANE, HESTON, MIDDX. TW5 9PE

## SCARBOROUGH SOUTH CLIFF GOLF CLUB LTD

require a

## HEAD GREENKEEPER

Applicants must be fully experienced in all aspects of course management and maintenance, have a thorough knowledge of modern course machinery and be able to supervise and control staff.

No accommodation supplied.

Salary negotiable.

Apply in writing, enclosing full C.V. to:

Mr. C. H. Atkinson,
Secretary/Manager,
Scarborough Cliff Golf Club Ltd,
Deepdale Avenue,
Scarborough,
YO11 2UE



### ABRIDGE GOLF & COUNTRY CLUB

require

## HEAD GREENKEEPER

Applicants must be fully experienced in all aspects of greenkeeping and have a thorough knowledge of modern course machinery and its maintenance. The ability to control and motivate staff is essential.

Salary negotiable.

Accommodation provided.

Applications should be in writing and include a full C.V. stating present salary to:-

P.G.PELLING,
SECRETARY/MANAGER,
ABRIDGE GOLF & COUNTRY CLUB,
EPPING LANE,
ABRIDGE,
STAPLEFORD TAWNEY,
ESSEX. RM4 1ST

# ADDINGTON PALACE GOLF CLUB LTD

require an

# ASSISTANT HEAD GREENKEEPER

Applicants must be fully experienced in all aspects of modern greenkeeping, including being conversant with:
Automatic watering systems, maintenance of machinery, and turf management.

Salary negotiable, accommodation provided if required.

Applications should be in writing and should include a full C.V. stating present salary, and sent to:-

The Secretary,
Addington Palace Golf Club Ltd.,
Gravel Hill,
Addington,
Croydon,
Surrey.
CRO 5BB

## APPOINTIMENTS

#### HENLEY GOLF CLUB

Invite applications for the post of

#### **HEAD GREENKEEPER**

From persons with suitable qualifications and experience in all aspects of Course Management. A thorough knowledge of course machinery and maintenance is essential as is the ability to motivate and direct staff. Required to start Oct/Nov 1987.

Salary negotiable. Accommodation available. Applications in writing stating age, experience and enclosing C.V. to:-



The Secretary/Manager, Henley GolfClub, Harpsden, Henley on Thames, Oxon. RG9 4HG

#### INVERNESS GOLF CLUB

requires

## ASSISTANT HEAD GREENKEEPER

Applicants must be fully experienced and hold relevant qualifications.

Salary and conditions negotiable, house available.

Apply to:-The Secretary, Inverness Golf Club, Culcabock Road, INVERNESS 1V2 3XQ



## SHREWSBURY GOLF CLUB (18 hole course)

Invite applications for a

## FIRST ASSISTANT GREENKEEPER

Applicants must be fully experienced in all aspects of modern greenkeeping and machinery maintenance. Appointment to commence as soon as possible. Salary negotiable. Apply in writing with full C.V. to:

The Secretary,

Shrewsbury Golf Club, Condover, Shropshire. SY5 7BL Applications close Monday 28th September 1987

## PORTLETHEN GOLF CLUB

require a
HEAD GREENKEEPER

The successful applicant will work in conjunction with the construction contractor, B.D.Pierson Ltd., and assume fullresponsibility on completion scheduled for mid '88.Proven experience is essential. Accommodation not yet available, but is planned. Written applications, detailing experience and qualifications to:-

The Secretary, Portlethen Golf Club, 21, Devenick Drive, Portlethen, Nr. ABERDEEN. AB1 4QG





## Milltown Golf Club Dublin

require a

## **HEAD GREENKEEPER**

The successful applicant will be fully experienced in all aspects of modern greenkeeping and machinery maintenance.

Experience of staff supervision desirable.

This well established course is situated four miles from Dublin.

Salary is negotiable, but will be attractive and commensurate with this important position. Housing is not available.

Written applications with full details of age, experience and qualifications etc. to:-

The Secretary/Manager
Milltown Golf Club,
Lower Churchtown Road,
Dublin 14

#### FOR SALE

Toro GM3 Greens Triplex complete with greens units and grass boxes, reconditioned engine recently fitted. £2,500 ono
Ransomes 180 tees and surrounds ride on mower with floating heads and grass boxes new cast iron engine fitted. £3,500 ono
Ransomes Triplex verticut units - set of 3, excellent condition. £800 ono
Ransomes Triplex verticut units - set of 3.
£350 ono
KIBWORTH GOLF CLUB,

KIBWORTH GOLF CLUB, WEIR ROAD, KIBWORTH. TEL: (053 753) 2301 Jacobsen 76" Turf King c/w
Grassboxes. Kohler engine,
hydrostatic drive. Fully
reconditioned and re-painted.
Any trial.
Best offer over £2,000.
Tel: Mr. Watson
on
Dorking (0306) 711598

## FOR SALE

Reconditioned Quintuple Ransomes
Sportscutter gang mowers, Steel or
Pnuematic wheels £2750.
Reconditioned Triple Mounted set
Ransomes gang mowers £1750.
Royer Model 30 Power Screen £1995.
12" Turfco Turfcutter NEW £1195.
Sisis Litamiser £600.
Tel: Turf Machinery Hire
Woking (04862) 28658

END OF SEASON SALE THROUGH

Course

PHONE 0255 507526



TORO PRODUCTS ARE DESIGNED ESPECIALLY FOR THE AUTOMATIC WATERING OF SPORTS PITCHES, GOLF COURSES, RACE COURSES, TENNIS COURTS, BOWLING GREENS, PARKS AND GARDENS AND LANDSCAPED AREAS.

# VOTE OF CONFIDENCE

Sales of Daconil\* *turf* prove the point. Since it was launched by ICI last year, greenkeepers everywhere have elected to use this turf fungicide based on cholorothalonil. Well you can't keep a good fungicide down!

Its unique mode of action means that even after years of successful use on fine turf it continues to be effective.

And because of its multi-site action and chemical composition it can be used in sequential spray programmes with total confidence.

The list of list impressive:

The list of turf diseases prevented, controlled and cured

RED THREAD
FUSARIUM PATCH
LEAF SPOT/MELTING OUT
FUSARIUM LEAF BLIGHT
GREY SNOW MOULD
TAKE-ALL PATCH
ANTHRACNOSE
BROWN PATCH
DOLLAR SPOT

But that's not all. Daconil *turf* can be used at any time of the year and is especially useful in spring and autumn when disease incidence is most likely. It has dependable and consistent disease activity and only needs to dry on the leaf to resist heavy rains, morning dew or frequent watering. And because of its liquid formulation it is easy to dilute and apply.

Vote for Daconil turf!

# Daconil turf.



## **Professional Products**

ICI Professional Products, Woolmead House East, Woolmead Walk, Farnham, Surrey GU9 7UB. Tel: (0252) 724525 Daconil turf contains chlorothalonil. Read the label before you buy; Use pesticides safely.

## APPOINTIMIENTS

## HILVERSUM GOLF CLUB THE NETHERLANDS

require a

## GOLF COURSE MANAGER

for its 18 hole Championship Course

The successful applicant will be responsible to the Greens
Committee of this private Golf Club and must have a high
degree of competence and experience in the theory and practice
of golf course management.

The ability to lead and motivate staff, to organise and maintain machinery and equipment and to control the budget. Must be combined with a pleasant attitude towards the members. Some knowledge of the Dutch language is an advantage.

Applications in writing with full C.V. to:-

Chairman of the Greens Committee of the Hilversum Golf Club, Soestdijkerstraatweg 172, HILVERSUM, The Netherlands.



#### **GOLF CLUB AUGSBURG**

is looking for a

## GREENKEEPER

with some experience to begin on March 1, 1988.

Augsburg is located in Southern Germany, Bavaria, about 70km west of Munich. The club has 18 holes and a large Driving Range. The applicant has to replace the present greenkeeper who will leave us in three years when he retires. Therefore the applicant has to work as the greenkeeper's assistant for the next three years. We are looking for someone who can maintain the Golf Course under difficult circumstances concerning climate & soil. The renovation of our old greens will be a special task. Independent responsible work is required.

Applications with a short C.V., certificates of education and former employment, expectations of salary have to be sent to:-

Golf-Club Augsburg e.V., Engelshofer StraBe 2, 8093 Bobingen 3, GERMANY.



## THE ROYAL DUBLIN GOLF CLUB

Applications are invited for the position of

## **HEAD GREENKEEPER**

of the above 18 hole Championship Links

Applicants must have a sound knowledge of all aspects of Greenkeeping and experience in modern golf course management techniques.

A practical working knowledge of the use and maintenance of modern greenkeeping machinery and the ability to motivate and lead staff is essential.

Excellent salary and conditions.

Apply in writing, giving qualifications and full career experience to:-

THE SECRETARY/MANAGER, THE ROYAL DUBLIN GOLF CLUB, DOLLYMOUNT, DUBLIN 3.

All replies will be treated in the strictest confidence.

## Buyers' Guide

#### BARK AND BARK BASED **PRODUCTS**

Camland Products Ltd., Fordham House, Fordham, Cambs CB7 5LN Tel: 0638 721100 Telex: 81254

Melcourt Industries Limited,

Three Cups House, 5 Church Street, Tetbury, Glos GL8 8JG Tel: 0666 52711 or 53919 Telex: 43144

#### BRITISH ASSOCIATION OF GOLF COURSE ARCHITECTS

Full Members J. Hamilton Stutt Hamilton Stutt & Co., Bergen, 12, Bingham Ave, Poole, Dorset BW14 8NE Tel: 0202 708406 Donald Harradine, CH 6987, Caslano, Switzerland

Tel: 091 711561 Fred Hawtree. Martin Hawtree -

Hawtree & Son, 5 Oxford Street, Woodstock, Oxford 0X7 1T0 Tel: 0993 811976

Donald Steel - Cotton, Pennink, Steel & Partners Abbey Park, Bagnell End Rd,

Redditch, Worcs Tel: 0527 63918

Tom McAuley, 38 Moira Drive, Bangor, Co. Down, N. Ireland BT20 4RW Tel: 0247 465953

Peter Harradine, P.O. Box 1165, Sharjah, United Arab Emirates

Tel: 009716 356446 Provisional

Alistair Rae, 26 Tannoch Road, Uplawmoor, Glasgow G78 4AD Tel: 050 585 371

Cameron Sinclair - Cotton, Pennink, Steel & Partners

Abbey Park, Bagnell End Rd, Redditch, Worcs Tel: 0527 63918

Simon Gidman - Hawtree & Son, 5 Oxford Street, Woodstock, Oxford

Tel: 0993 811976 Overseas (Full)

Eddie Hackett, 28 Ailesbury Drive, Dublin 4, Eire Tel: Dublin 691592

Joan Dudok Van Heel, Beukenlaan 4, B-1640, St Genesius-Rode, Nr Brussels, Belgium Tel: 02/358 3387

Pier Mancinelli, 21 Via Achille Papa 00195 Rome, Italy Tel: 06 36036 35 Jan Sederholm,

S 252 34 Helsingborg. K. Kristoffersg 3A, Sweden Tel: 042 371 84

Overseas (Provisional)

Kurt Rossknecht, Dennenmoos 5a, 8990 Lindau-Bad, Schachen, Germany Tel: 08382 230 05

R. Berthet, 57-59 Rue Lhomond, 75005, Paris,

France Tel: (1) 336 77 50 Senior Member

Fraser Middleton

Tel: 0277 73720

15 Kilmaron Crescent, Cupar, Fife KY15 4DS, Scotland

BRITISH ASSOCIATION OF GOLF **COURSE CONSTRUCTORS** Chipman Limited,

Horsham, Sussex RH12 2NR Tel: 0403 60341 Golf Landscapes Ltd., Ashwells Road, Bentley, Brentwood, Essex CM15 9SR

Land Unit Construction Ltd., Folly Farm, Hanslope, Milton Keynes, Bucks MK19 7BX

Tel: 0908 510414 Brian D. Pierson (Contractors) Ltd.,

Homestead Farm, Ringwood Road, Three Legged Cross, Wimbourne, Dorset BH21 6QY Tel: 0202 822372

Southern Golf & Landscapes Ltd., 9 Old Square, Warwick Warwickshire. Tel: 0926 492898

**FERTILISERS** Bentley, Joseph Ltd., Barrow-on-Humber, South Humberside. Tel: 0469 30501 FERTILISER & TOP DRESSING

D.O. Hunt Ltd.. 14 Fairfax Road, Heathfield, Newton Abbot, Devon TQ12 6UD Tel: 0626 834499

**GOLF COURSE ACCESSORIES** Bridges Pennants,

68 Southchurch Avenue, Southendon-Sea, Essex SS1 2RR Tel: 0702 612344 & 67393 Contact: Mr. A. Elvin H. Pattisson & Co. Ltd., 342 Selbourne Road, Luton, Beds

LU4 8NU Tel: 0582 597262 Telex: 887916 Contact: Peter Dell

GRASS CUTTING EQUIPMENT Ransomes Sims & Jefferies PLC,

Nacton Works, Nacton Road, Ipswich, Suffolk IP3 9QG Tel. 0473 270000 Fax: 0473 270030 Telex: 98174

Cables: Ransome Ipswich Contact: J.F.R. Wilson/R. Bishop Watkins Nayler & Co. Ltd., Friar Street, Hereford

Tel: Hereford (0432) 274361 Telex: 35302 W. Nayler or contact your dealer

**GRASS SEED** British Seed Houses Ltd., Bewsey Ind. Est., Pitt Street,

Warrington, Cheshire Tel: 0925 54411 Contact: Roger Saunders Portview Road, Avonmouth, Bristol BS11 9JH

Tel: 0272 823691 Contact: Michael Warne Camp Road, Swinderby, Lincoln Tel: 0522 86714 Contact: Philip Adams

Eastfield Ind. Est., Penicuik, Mid-Lothian Tel: 0968 78480 Contact: Michael Shannon

Mommersteeg International

Station Road, Finedon, Wellingborough, Northamptonshire NN9 5NT. Tel: 0933 680891 Contact: Michael Perkins IRRIGATION

Cameron – a division of Wright Rain Limited, Head Office: Harwood Ind. Est., Littlehampton, West Sussex BN17 7BA. Tel: 0903 713985

Evesham, Worcs.
Tel: Evesham (0386) 49348
Ringwood, Hants
Tel: Ringwood (04254) 2251 Spalding, Lincs Tel: Spalding (0775) 3764

Norwich, Norfolk. Tel: Swainsthorpe (0508) 470402 Edinburgh, Scotland Tel: (031) 453 4789

Bridgnorth, Shropshire Tel: Bridgnorth (07462) 61762 Wetherby, Yorks Tel: Boston Spa (0937) 845788

IRRIGATION EQUIPMENT Watkins Nayler & Co. Ltd.

Friar Street, Hereford Tel: Hereford (0432) 274361 Telex: 35302 W. Nayler or contact your dealer

Prime Watermen Ltd,

(Weather-matic distributors), Wangford, Beccles, Suffolk NR34 8AX Tel: 050 278 481 Contact: Graham Hall

Toro Irrigation Ltd., Unit 7, Millstream Trading Estate, Ringwood, Hampshire BH24 3SD Tel: Ringwood (04254) 6261

British Overhead Irrigation Ltd., The Green, Upper Halliford, Shepperton, Middlesex TW17 8RY Tel: 09327 88301 Telex: 928767 Contact: Sales Department

Sports Ground Irrigation Co. Hereward Lodge, Paget Road, Lubenham, Market Harborough, Leics.

Tel: 0858 63153 Telex: 347102 irrico G Watermation Ltd.,

Monument Way, E. Woking, Surrey GU21 5LY

Tel: Woking 70303 Telex: 859224 LIME FREE SANDS Buckland Sand & Silica Co. Ltd.,

Reigate Heath, Reigate, Surrey Tel: 07372 40151 LITTER BASKETS

Wire Products (Wales) Ltd., Treforest Ind. Est., Pontypridd,

Glam. Tel: Treforest (044 385) 2501 LIQUID ORGANIC FERTILISER Farmura Environmental

Products Ltd., Stone Hill, Egerton, Nr. Ashford, Kent

Tel: Egerton (023376) 241 LOAM

C. H. Binder Ltd., Embleys Farm, Moreton, Ongar, Essex. CM5 0HY

Tel: Moreton 246 — 320 PEAT

Bord na Mona, 36 King Street, Bristol BS1 4DP Tel: 0272 211666 PEAT IN BULK

Bord na Mona, 36 King Street, Bristol BS1 4DP

Tel: 0272 211666 RANSOMES DISTRIBUTORS

Wilcocks, Walker Street, Preston, Lancs.

Tel: Preston 53068 SAND

Martin Bros.

1A Clifton Street, Alderley Edge, Cheshire SK9 7NW Tel: Alderley Edge (0625) 584571 Contact: Nick Gray

Wettern Bros PLC., Rochester Road, Aylesford, Maidstone, Kent ME20 7DX Tel: 0622 70431 Contact: J.F. Hoaen SANDS – HORTICULTURAL

AND LAWN Buckland Sand & Silica Co. Ltd.,

Reigate Heath, Reigate, Surrey Tel: 07372 40151

**SEATS** 

Barlow Tyrie Ltd., Braintree, Essex CM7 7RN Tel: Braintree (0376) 22505 Telex: 98173 Fax: Braintree (0376) 47052 (Brochure available)

SEAWEED FERTILISERS Seamac,

Foundry Lane, Chippenham, Wilts. Tel: 0249 652811 SEMI MATURE TREES

Eastcote Nurseries (Solihull) Ltd., Wood Lane, Barston, Solihull, West Midlands B92 OJL Tel: 06755 2033/4 Contact: Stephen or Michael Fisher SEMI MATURE TREE PLANTING

(EQUIPMENT FOR HIRE) Eastcote Nurseries (Solihull) Ltd., Wood lane, Barston, Solihull, West Midlands B92 OJL

Tel: 06755 2033/4 Contact: Stephen or Michael Fisher

TEE MARKERS Tacit-T-Markers,

3, Millers Lane, Monks Kirby, Rugby CV23 ORJ Tel: 0788 832166 Exclusive Teeing Ground Area Marker. Brochure Available. TEE MATS

Carpetition Ltd., 6 Kaffir Road, Edgerton, Huddersfield HD2 2AN Tel: 0484 28777

("Tofturf" – Synthetic Grass
Backed Rubber-Porous)

Charles Lawrence UK Ltd.,

153a Farndon Road, Newark, Notts. NG24 4SP

Tel: 0636 76218 Telex: 37668 (Synthetic Grass Backed with Rubber)

TOP DRESSING Martin Bros.

1A Clifton Street, Alderley Edge, Cheshire, SK9 7NW Tel: Alderley Edge (0625) 584571 Contact: Nick Gray

**Rufford Top Dress Supplies,** Nucks Wood Sand Quarry, Rufford, Nr. Ormskirk, Lancs Deliveries to any part of UK Tel: 0704 821 314 or 061 747 4333

TREE GUARDS Lenvale Products Ltd., Chart Mill, Chart Sutton, Maidstone, Kent.

Tel: 0622 890909 TREES & SHRUBS Notcutts Nurseries Ltd., Woodbridge, Suffolk IP12 4AF Tel: 03943 3344 (Incorporating Waterers Nurseries,

Bagshot, Surrey) Eastcote Nurseries (Solihull) Ltd., Wood Lane, Barston, Solihull, West Midlands B92 OJL Tel: 06755 2033/4

Contact: Stephen or Michael Fisher

TREE TIES Toms Tree Ties, Wheeler Street, Headcorn, Ashford,

Kent TN27 9SH Tel: 0622 891111
TRENCHING MACHINES A.F. Trenchers Ltd.,

Gosbecks Road, Colchester, Essex Tel: 0206 44411 Contact: W.D. Baker

TURF (SPECIALITY) Rolawn (Turf Growers) Ltd., Elvington, York YO4 5AR Tel: 0904 85 661 Telex: 57796 Rolawn G Purpose-grown, Mature, Sports & Amenity Turf

VERTI-DRAIN HIRE Aeration & Drainage Services, 20 Westminster Close, Eastbourne, East Sussex Tel: 0323 506725

Brian D. Pierson (Contractors) Ltd., Homestead Farm, Ringwood Road, Three Legged Cross, Wimbourne, Dorset BH21 6QY Tel: 0202 822372/824906

E&S Sports Ground Contractors, 23 Knox Green, Binfield, Bracknell, Berks RG12 5NZ Tel: 0344 424081 (Richard Veitch) S.C.C. Lands Maintenance Ltd., 37 Roman Way, Turpins Ride, Haverhill, Suffolk CB9 ONG Tel: 0440 62369 Worth Draining,

Peter Bloodworth, Cornbecks, Irnham, Grantham, Lincs NG33 4JQ Tel: 0476 84266

# WHAT DO YOU WANT?



## The Mini or the Rolls?

They're both unique in their own way. And they both offer real value for money. The trouble is, everyone wants luxury, but most of us can't afford a Rolls.

The new OGGANGGOOA range of fine turf organic fertilisers is unique too! But everyone *can* afford them. And the result is true luxury on *your* greens. You'll be surprised how much you get for your money.

We call them OBGANGEROM because the granule itself is a highly nutritious form of organic matter, carefully manufactured from top quality animal waste. So, you don't just feed your greens, you put back valuable organic matter every time you fertilise with OBGANGEROM.

The fertiliser ratios with ODGANOGROW are based on the latest research, (which demonstrates that excess phosphate encourages annual meadow grass and leads to increased disease susceptibility).

So we give you the choice. Three ODGATOGROM fertilisers contain no phosphate, but if you do have a phosphate deficiency, we have an ODGATOGROM tailored to meet your special needs.

And finally, OBGATOGEOCA contains iron to provide a rapid green-up effect, strengthen your turf and reduce wear, tear and disease.

For further information on how to buy luxury at a mini price contact:

What more could you want?
All the rest offer you a mini!

# TRIDENT

THE ULTIMATE IN TURF CARE PRODUCTS