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continued on page 8...

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I MAKE no excuse for returning, yet again, to one of the major problems in course management today, namely traffic and associated wear. This is most obvious on the busiest courses, but every course shows more wear-related damage today than it did a decade ago.

My experience indicated that the most outstanding feature of course improvement in 1985 – which will be long remembered for its late spring and monsoon-like summer – related to fairways mown by hydraulic-powered, direct-mounted gang mowers and also where broad surrounds and very deep aprons – literally foregreens – were mown by triple mowers fitted with seven-bladed reels and floating heads and where cuttings were removed in boxes.

Quite apart from a dramatic improvement in playing conditions around the greens, this combination kept tractors well away from aprons, as well as putting surfaces, and especially narrow entrances to greens.

How often do you still see good greens and, often, excellent fairways with some five to ten yards of appallingly uneven, damaged, eroded, coarse-textured, open, muddy turf in the no-man’s land between? One cause is simply because tractors, especially if towing trailed gangs, have to go over and over almost the same area of ground to mow awkward corners and what with constant traffic and tight turns and tyre marking, if not ruts, run-up conditions are unpredictable. I find that such areas are often the worst feature of many courses.

For too long in greenkeeping (farming learned the lesson decades earlier), we have treated tractors as horses. The design of some trailed gangs has not intrinsically altered since the days when they were fitted with shafts not draw-bars. In more than one greenkeeping shed, I have been shown the old leather boots used to prevent horses’ hoof marks on fairway turf!

Harry Ferguson, who invented the hydraulic lift that revolutionised small farming, never claimed any great genius in the matter. He merely said that he was the first person to understand the difference between a horse and a tractor – namely that you cannot bolt anything to a horse’s rump. Yet, we still tow equipment round our courses at the end of a tow bar, with about as much relative manoeuvrability as trying to turn a giant tanker in the English Channel.

By direct mounting, not only is there no need to go back over and over the same area, but you can back or run the machines under cover, as well as using the weight of the tractor, as with direct-mounted aerating machines, to achieve penetration instead of relying on sheer weight – with all its attendant problems in lifting and so wheel marking under soft conditions.

There never was a better summer to illustrate the benefits of hydraulic gang mowing than the last. On many hilly, but wet and heavy courses, the end result of trying to mow in the monsoon conditions that affected the whole of Britain, but nowhere worse than in Scotland and the north, was all too often a confused pattern of spiralling wheel slip and skid marks as greenkeepers desperately tried to stop tractors trailing gangs from stalling on slopes. Have you ever had to try to turn a set of trailed quintuple gangs around when the tractor gets stuck? Once bitten, twice shy?

Furthermore, with the lush growth and interrupted pattern to regular mowing, all too often with trailed gangs, fairways were left covered in unsightly lumps of cut grass accumulating on mowers and dropping off – even if the reels did not jam and land, wheels consequently skid.

With hydraulic gangs, the higher reel speed, independent of the land speed, meant a better finish for three reasons. One, fairways could be cut more frequently, since it was simplicity itself, especially with weatherproof cabs, to mow fairways even in the pouring rain. Second, the high reel speed flung the finer cuttings further and so there was none of that unsightly ‘silage crop’ effect that so disfigured some inland fairways last summer.

More and more, we must try to divorce greenkeeper and golfer traffic, especially from vulnerable areas where both play and maintenance converge. Nowhere is this more serious, in both cause and effect, than at entrances to greens and walk-offs from green to tee.

I feel that architects should consider traffic more when designing courses – certainly in the case of potentially busy courses, especially those attached to hotels, to the extent of building ‘orbital motorways’ in the rough as part of the initial design concept. You can only deplore such extravagant and contrived bunkering around greens that forces all traffic into a narrow entrance. Inevitably, this becomes bare and eroded, while walk-off traffic is similarly constricted, with the same results.

Paths are really no answer. If they are in play, then problems are inevitable and, in any case, paths only transfer the problem to the end of the path. If paths must be made, they must be wide enough to take two players abreast, towing trolleys and with a surface kind to studded shoes. All too often, we see paths unused because they are hard underfoot to spikes. Yet, either side of the path, the turf is worn bare by players walking off.

Materials must also not damage mowers. I abhor chippings or
even red blaze and the best material I find is chopped brashings (a cheap source of supply on heathland courses, where only constant culling of seedling birch keeps this invasive weed at bay) or bark, which can be purchased. Shell (cockle shell used so widely on Lancashire links and in Essex), is satisfactory, except where the soil is acid, as it kills heather. With brashings, you need a chopper, such as the old turnip chopper of my farming youth. But there are efficient ones on the market, either pto driven or self-propelled.

Prevention is always better than cure, but at times we have to cure as well. Constant deep aeration of areas subjected to compaction will help, but there is no guarantee against erosion, by wheels or feet, as those in charge of famous beauty spots have discovered!

This is why better mowing and better preparation of wide surrounds, with its implication of constant aeration; regular mowing three times a week; even top dressing and certainly controlled, periodic, rather than permanent, irrigation helps such vulnerable areas to survive the effects of traffic better.

Even so, patching – especially of paths from tees, as well as from greens to tees – is inevitable, often on an annual basis. Too often, imported turf – either seed-free turf, which can never be hard-wearing enough initially (and it rarely gets a chance to survive long enough to become mature), or coarse meadow turf – is used. Contrary to opinions still being expressed, ryegrass does not form a hard-wearing turf because it is so open and easily invaded by annual meadow grass and it gives an unsightly finish.

Fairway turf

The answer – even if it is unpopular with the members – is to use well-established fairway turf. If the scars are patched at once with imported (or nursery) turf and, if necessary, protected by white lines or even rope and if the turf is lifted away from the main line of traffic, even the least satisfactory replacement turf will eventually establish and become very similar to that surrounding it. This will happen, if only because the grass type will stabilise and is determined by two factors – natural (the soil below and the weather) and applied (management in the broadest sense).

Needless to say, never patch with ryegrass-contaminated imported turf. The correct solution may mean double work, but no more than patching the same walk-off area twice in one season and still not solving the problem. The problem of traffic is certainly not new. The great increase in winter play and, therefore, the greatest damage on more easily sealed wet soils, coupled with ever-increasing standards that are expected – indeed, demanded – in course presentation is. Much more repair and remedial work is, therefore, required and we can safely say that the problem of traffic and its results will get worse.

Even if every precaution, such as introducing white lines, banning trolleys in winter, making greenkeeper roadways and intensifying remedial work, is taken, we shall all be needing much larger and better managed turf nurseries in future years.

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converted into a first-class hotel with a four-sheet ice rink for curling - a superb housing development is being integrated into the estate.

There is a championship golf course that should be ready for play early this year. Once more, the man at the hub of things is Ken Smith, a keen golfer who planned the fairway layout and site balance in association with Donald Steel and Cameron Sinclair. Brian D. Pierson was responsible for the construction and landscaping and Jim Arthur the consulting agronomist.

Maximum use has been made of the land’s natural features and the course’s routing has evenly balanced the constraints of the site and the need to develop other activities against essential and desirable design criteria.

The fundamental philosophy was that the existing landscape should direct the golf course layout, rather than the artificial imposition of design theories and dictums.

Water has made an interesting feature on a number of holes and this has added to the strategy, character and aesthetic appeal of the layout. From a greenkeeping point of view, the course has been designed for minimum labour levels through the use of sophisticated machinery. This has been done by the careful planning of slopes on all mouldings, the design and shaping of bunkers and the distances between hazards, greens, tees and planted areas.

John Campbell
WHEN you think of parkland golf courses, you imagine lush green, almost pasture, land with woods and big trees dominating the landscape. In fact, the word park is defined as a large enclosed piece of ground with woodland and pasture attached to a country house. So, if you make the house into a clubhouse and the ground into a golf course, you have a parkland golf course!

There are differences in the maintenance of parkland to other courses. The most important one is tidiness. A parkland course must never look untidy, although I would not suggest that other types should look unkempt.

Trees are vital to parkland and have, in recent years, become a big problem with the ravages of Dutch elm disease and many other destructive elements. We need to be much more aware of the needs for replanting and the types of tree that are going to grow on our courses.

We have often seen greens committees and greenkeepers trying to plant, with all the best intentions, the wrong types of tree and, in many cases, in the wrong place, forgetting how big they become. It is much better to call in a good architect if a programme of tree planting is to be carried out.

Maintenance of trees is also a consideration and, in many cases, there is a tendency to forget this when planting. Plant back-up trees for the more important trees, golffwise, on your course. Then, at least, you will not have a big space left when a tree is lost. Do not plant the same type of tree as the one already there, for if it is lost to disease, it is almost certain you will also lose your back-up tree to the same disease.

Trees can be purchased as semi-mature, up to 25-30ft. Of course, they cost more, but it may be worth spending the money if you have a golf hole spoiled by the loss of a tree. But it is better to plant young as long as time is on your side.

A good selection of trees would always include:
- Horse Chestnuts need only be avoided where wet clay forms the site to be planted on. They grow quickly and will reach 90-100ft with a spread of 60ft or more. All heights and spreads should be taken into account when planting.
- Beech. Although chalk and limestone soils are its natural home, the common beech will grow in most situations, including exposed ones near the sea. They can reach 80-100ft with a spread of 70ft.
- Limes are accommodating and will succeed in most types of soil. They are among the finest of parkland trees with a height of over 100ft and a spread of 50ft.
- Sycamore is quick growing and hardy. It has a height of 80ft-100ft and a spread of 50ft-60ft.
- Oak. Of all oaks, the turkey oak and the common oak are the best known. The turkey oak is the fastest growing of the two and will grow in any soil as long as there is plenty of depth. It will grow up to 100ft and spread up to 80ft. The common oak will grow 60-70ft and spread 60ft.
- Willows are usually associated with damp, but may be grown in most, soils.
- Hornbeam is one that will also grow in most places, as well as damp heavy soils.

It is well worth spending a little time to become more knowledgeable about your trees. Of course, trees need attention, keeping the low branches trimmed to the needs of the golfer, cutting off the sucker shoots, taking out dead wood, etc. The big task comes each autumn when leaves start to fall and you will probably need a leaf sweeper!

Finally, a word of warning. The tree root will spread to find water. It will often contain a central root, the tap root, with many branches from which a mass of fibrous roots will grow. These can spread well beyond the spread of the tree, so care should be taken not to plant too near to greens, etc.

The above is an extract from a paper given by Gordon Childs at the recent SIGGA educational conference.
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London
The autumn meeting at Muswell Hill was an outstanding success, due mainly to Chris Greenwood's efforts on and off the golf course. His staff were out early on a miserable day and prepared the course to a very high standard.

The one, two and three in an 18-hole Stableford (scratch to 12 handicap) was A. Taylor (Parker Shield) with 37 points, A. Phillips, 36 points and I. McMillan, 34 points. In the 13 to 24 handicap section, C. Greenwood (H. Pat-tisson Trophy) had 36 points, N. Exley, 33 points and T. Low, 32 points.

An 18-hole Texas scramble was won by R. Howlett, D. Player and P. Shepherd from N. Exley, D. Hansard and C. Barker.

The continued support of trade members is much appreciated and, on this occasion, they were represented by Joe Spinks (Club Mowers), Roger Bowles (Rigby Taylor), Alan Moffat (T. Parker & Sons), Denis Smith (Kings), David Craig (H. Pat-tisson), Allan Stowe (Syn Chemicals), David Murphy (Maxwell Hart) and Bob Watts (Supaturf).

Congratulations to John Edwards and Adrian Parks (Moor Park), who won the first summer league, organised so admirably by Michael Peters. In a thrilling final, they defeated Michael and his partner Chris Slater (Northwood) at the first sudden-death hole.

The visit by branch members to J. Mann's factory at Saxmundham, where the Toro 350 D is made, and to the premises of Lely Import was an extremely interesting day, thanks to the co-operation of Colin Graham (Lely Import) and Chris Soper (A.T. Oliver) and the hospitality of the companies' staff.

The annual dinner and dance brought 1985's events to a close. The effort put into its organisation by Tom and Ann McDonald made sure that 80 members and guests ended the year with a 'swing'. We were well-endowed with raffle prizes, so many thanks are due to all those who contributed.

To close, I congratulate branch members John Teixeira, who was in the greenkeepers' team that won the Kubota Challenge, and Chris Barker, who received a Vic-ta student award for his results in the NTC examinations. Members should note that my new phone number is Luton (0582) 21586.

David Low

Surrey
The superb Berkshire Golf Club was the venue for Surrey's autumn meeting, sponsored by Rigby Taylor (South), which provided prizes of silver and cut glass. Surrey members express their appreciation of the company's help and support.

The meeting was a 27-hole Stableford and the winners were: 1st — C. McMillan, 2nd — R. Moreton, 3rd — P. King and 4th — A. Morton. The best scratch score was achieved by D. Lenham and the best gross score on short holes by J. Tate.

We thank the Berkshire for extending the courtesy of its course. Thanks also to Bob Moreton and his team for having it in such excellent condition.

Tyrrells Wood hosted the first of what is hoped to be an annual match between Surrey and the golf club secretaries. A very enjoyable match finished all-square.

The day concluded with dinner at which a handsome cup, donated by SISIS, was presented to Alex Bradshaw, the Surrey branch chairman, who will keep it for six months before passing it on to the secretaries until the next match.

Our thanks to the golf club for granting the courtesy of the course and to all the staff for their efforts. Finally, a special 'thank you' to Bert Watson, the course manager, for having Tyrrells Wood in such good condition, even if he couldn't get the tees any further back!

Worplesdon Golf Club was the setting for the Surrey branch annual turkey trot competition and the members express their gratitude to the club for its kindness in extending the courtesy of the course.

As usual, Parkers donated the turkey and main prizes. Winners of the 18-hole Stableford were: 1st — B. Turner, 2nd — A. Brown and 3rd — R. Johnson.

Brian Turner, Worplesdon's head greenkeeper, produced a round of 66 gross (SSS 69) for his winning score. Well done, Brian!

A seminar at Wentworth, given by Dr Peter Hayes and colleagues Continued overleaf...
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from the STRI, proved a great success.

Diary dates for the early New Year include a lecture on first aid at Maldon GC on February 24, the branch AGM at the New Zealand Club on March 5, a machinery demonstration by SISIS at Walton Heath on March 17 and a dinner-dance at the Drift on April 19.

M. Hale

- M. Hale has resigned as administrator to the Surrey branch. He wishes all branch members well and reminds them that the AGM takes place at the New Zealand club on March 5, commencing 7.30pm, when several committee vacancies will be filled. Members wishing to stand for office should attend and have someone prepared to propose them.

Tyrrells Wood secretary Brian Spencer and Surrey branch chairman Alec Bradshaw are joint custodians of the cup.

Central Secretary

Please note that John Crawford of 1 Katrine Drive, Crossford, Dunfermline KY12 8XR (Tel: Dunfermline 737753) is the Central section secretary and not Elliott Small as was detailed in the application form for SIGGA membership in Greenkeeper November/December 1985.

APPLICATION FORM FOR MEMBERSHIP OF SIGGA

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**Part III** — simply complete a slogan for SAI “Longlife” products in not more than 10 words.

**Part IV** — those successfully completing the first three phases will be invited to attend for a personal interview with a panel of judges.

The closing date for receipt of entries is 12 noon on Wednesday 30th April 1986. Interviews will be held during June/July. Finalists will be announced in the September issue of “The Groundsman”.

The names of the winners, and runners-up, will be announced, and their prizes presented, at a special ceremony to be held in London on Friday 31st October 1986.

Further details, and Entry Forms, are available from:

The Institute of Groundsmanship
19-23 Church Street, The Agora, Wolverton, Milton Keynes, Buckinghamshire MK12 5LG

Scottish Agricultural Industries PLC
Firth Road, Livingston, West Lothian EH54 5QW

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Colleges, universities and other study centres may obtain bulk quantities of the Entry Form for the use of their students from the IoG Head Office at Milton Keynes, or from their local IoG Branch Secretary.

The 1986 IoG Groundsman of the Year competition is sponsored by Scottish Agricultural Industries PLC, manufacturers of Longlife - the all year all turf treatment.
BASF Gets Into Britain

Several parties were treated by BASF recently to site visits of the company's vast and impressive base at Ludwigshafen on the Rhine and the nearby Limburgerhof Research Station. Later, they moved on to the American Golf Club at Heidelberg where BASF's Floranid has been applied. During the visits, Floranid and BASF's approach to the UK market was outlined.

Initially, the operation was divided into general turf and fine turf categories and BASF then started to evaluate its products - already proven on the continent - under UK weather conditions.

The STRI handled the work, which began in 1979 on both turf types and using sulphate of ammonia as the control.

In 1982, Roy Woolhouse of the STRI presented the ongoing general turf trial results at the International Turfgrass Conference in Canada and the findings were published in the 1983 STRI Journal.

On both types of sward, the slow-release effects of fertilisers containing Isodur (BASF's brand name for IBDU) was proved. An average release pattern of 13 to 14 weeks in summer was established with a carry-over effect from autumn into spring, building up the longer Isodur was used. The vegetative nature of Isodur treated plots remained constant, whereas the rapid reduction in pH on the control plots caused the trials to be abandoned.

In 1983, Dr E. Belger presented a paper at the 2nd National Turfgrass Council Conference on the properties of Isodur.

He stressed the different types of slow-release fertiliser available - coated products, products containing nitrogen inhibitors, organic based products and chemically broken down products. He went on to explain the development in the synthetic organic sector leading to Isodur.

Synthetic organic slow-release nitrogen always has the same molecular structure and, so, works consistently. Isodur is broken down by temperature and moisture, the two factors affecting

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REDDISH VALE GOLF CLUB LTD.
requires an
ASSISTANT HEAD GREENKEEPER

Applicants should be suitably qualified and experienced in all aspects of Golf Course Management. Salary negotiable — no accommodation.

Replies with C.V. to:
GREENS CHAIRMAN, REDDISH VALE GOLF CLUB LTD,
SOUTHCLIFFE ROAD, REDDISH,
STOCKPORT, Cheshire.
Treated with conventional fertiliser...

Treated with Floranid...

plant growth. Temperature produces microbial activity, but when this stops, as the temperature falls, hydrolysis continues to release small amounts of nitrogen, thus extending the value and range of uses of products containing Isodur when compared to other products.

In 1983, trials were conducted at the STRI looking at sand constructed pitches with their high nutrient requirements. This work confirmed to BASF that the benefits seen above ground for Isodur-based fertilisers were also apparent beneath the surface.

User trials were also initiated to ensure that, in conventional situations, the product could be applied evenly and effectively without qualified supervision.

Other companies came into the market and slow-release products started to increase the potential size of the UK amenity fertiliser market, but the overall potential remained unknown. BASF confirmed this with an independently commissioned survey. Findings showed the total area of intensively managed amenity turf to be 192,375ha and a market worth in excess of £10 million.

BASF decided to become directly involved and market a UK Floranid range, consisting of:
- Floranid N 31% N - for use on fine turf areas or where high levels of nitrogen are necessary.
- Floranid Turf 20.5.8.2 - designed for fine turf areas requiring p and k or for sandy sports pitches where a highly effective product is required.
- Floranid NPK 15.9.15.2 - the workhorse of the range and ideal for broad spectrum use, such as grass, flowers and shrubs. The preferred product where a single product approach is required.
- Floranid NK 14.0.19.3 - new to the UK market. Surveys have shown that over 60 per cent of fine turf areas were oversupplied with p. Floranid NK can be used on its own or in conjunction with Floranid N, but it also has applications in horticulture from where it originated.

Because the products release their nitrogen slowly, the risk of leaching is virtually eliminated, even on sand soils.

For sometime, managers of fine turf areas have expressed concern over the 'pick-up' of fertiliser when turf is cut. The physical persistence of a slow-release product will obviously be more susceptible to pick-up - product colour making this more noticeable. In order to minimise this problem, the Floranid range has been screened to a specific size. The company says this is preferable to alterations of the physical make up of the granule, which would affect the product's efficiency.

National distribution of Floranid in the UK is handled by George A. Palmer, Horticultural and Amenity Division, Oxney Road, Peterborough, Northants PE1 5YZ. Tel: 0733 61222.
THE GLOUCESTER HOTEL AND COUNTRY CLUB require an ASSISTANT GREENKEEPER

Applicants must have experience in Greenkeeping techniques and the use of modern equipment.

Salary negotiable, no accommodation.

Apply in writing, stating age and experience to:

THE GROUNDS MANAGER,
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GLOUCESTER GL4 9EA.

HUNSTANTON GOLF CLUB has a vacancy for an ASSISTANT HEAD GREENKEEPER for their well known Links course

Preference will be given to the younger experienced person holding a Green Keeping Certificate, who plays golf and intends to pursue a career in Course Management.

Salary negotiable.

No accommodation available.

Applications should be made in writing, stating experience and qualifications to:

The Secretary
Hunstanton Golf Club
Old Hunstanton
Norfolk PE36 6JQ

BRIDLINGTON GOLF CLUB require a HEAD GREENKEEPER

Applications are invited from suitably qualified persons with experience in all aspects of golf course management.

Salary negotiable (no accommodation).

Please apply in writing giving full details of age and experience to:

Hon. Secretary, Bridlington Golf Club. Belvedere Road, Bridlington. N. Humberside. YO15 3NA

MELTON MOWBRAY GOLF CLUB invites applications for the post of HEAD GREENKEEPER

Accommodation provided. Salary negotiable.

Opportunity for wife to undertake some catering.

Please apply in writing giving age, course experience and qualifications to:

The Secretary, Melton Mowbray Golf Club, Thorpe Arnold, Melton Mowbray, Leics.

WOODLANDS MANOR GOLF CLUB invites applications for the post of HEAD GREENKEEPER

Commencing early spring 1986. Must have sound knowledge of all aspects of greenkeeping, staff supervision and machinery maintenance. Good salary negotiable. Accommodation available if required.

Please apply in writing giving age, course experience and qualifications to:

The Proprietor, Woodlands Manor Golf Club, Tinkerpot Lane, Otford, Nr. Sevenoaks. Kent. TN15 6AB

ROYAL DORNOCH GOLF CLUB invites applications for the above post.

Salary negotiable — Post pensionable. House available.

Applications to and further details from:

The Secretary (H/G), Royal Dornoch Golf Club, Dornoch, Sutherland, Scotland. IV25 3LW.
HEAD GREENKEEPER
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A CLASSIC Scottish Golf Course to be constructed during 1986 requires an enthusiastic and proven Greenkeeper to be part of the team during all phases of the project and thereafter to take charge on completion.

The course will be situated in the Spey Valley and, due to its location, will be one of the most scenic and spectacular eighteen holes in Scotland.

Salary will be negotiable. Housing will be available.

Details of current and previous experience, together with all relevant information should be sent to:

J. Souter, Esq., Turfgrass Consultant,
Cunningham Road, Stirling, FK7 7SL, Scotland.

marked 'Private and Confidential'.
Applications to be recieved no later than 28th February, 1986.

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A. H. SMITH
SECRETARY
CRIEFF GOLF CLUB LTD.
CRIEFF, PERTHSHIRE, PH7 3LR.

CLANDEBOYE GOLF CLUB
invite applications for the post of
COURSE MANAGER

The successful applicant will be fully experienced in all aspects of modern greenkeeping and machinery maintenance. Experience of management is essential. Membership of an appropriate greenkeeping organisation will be an advantage. Clandeboye Golf Club is a 36 hole complex with an expanding range of modern greenkeeping equipment. Attractive salary. No accommodation.

Apply in writing full details of age, experience, qualifications etc. to:

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CLANDEBOYE GOLF CLUB
CONLIG
BANGOR
CO. DOWN
NORTHERN IRELAND

KEIGHLEY GOLF CLUB
KEIGHLEY WEST YORKSHIRE
require a
SUPERINTENDENT/GREENKEEPER

Applicants must possess sound knowledge and experience of modern turf management techniques, a thorough knowledge of the use and maintenance of machinery, equipment and watering systems.

Salary negotiable, but will be attractive and commensurate with this important position. No accommodation available.

Write in the first instance giving full details of training experience and present salary to:

THE SECRETARY
KEIGHLEY GOLF CLUB
HOWDEN PARK
UTLEY
KEIGHLEY
WEST YORKSHIRE
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You can't beat us when it comes to first class irrigation. With over 15 years experience behind us, we have installed irrigation systems all over Britain, in all the best places, and our sprinklers pop-up in Ireland, in Europe and in Africa.

But you probably know about our past. In the future we will continue to offer the best automatic irrigation installations but now we are ALSO OFFERING A NEW RANGE OF SPRINKLERS, CONTROLLERS AND OTHER SPECIALIST EQUIPMENT, ALL DESIGNED AND BUILT BY WATERMATION IN ENGLAND.

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So if you have a golf course, tennis court, bowling green, running track, football pitch... or even a whole town to be irrigated and monitored in the Middle East, we can offer you irrigation equipment which is specially designed and suitable for the needs of those areas.

Naturally, we can still supply you with all our usual range of equipment and spares and in fact we now have the most comprehensive range of irrigation equipment in the Country. THE CHOICE IS YOURS.

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Woking (04862) 70303

also at:
Stirling (0786) 70252
Dublin 760964
Astbury Golf Club, near Congleton in Cheshire, certainly believes in greenkeeper training. Dennis Mortram, senior lecturer at Reaseheath College, is seen presenting the SISIS Trophy to Alan Frost, the best greenkeeping student at the college for 1985. Also present are Alan Huxley, the head greenkeeper who recently received the Frank Goddard Memorial Trophy for the highest marks in last year's IOG national intermediate diploma, Mathew Jordan, who is attending phase two greenkeeping at Reaseheath, Derek Aarst-Tugn, who is attending phase one at the college, and John Galbraith.

Supaturf Products of Oxney Road, Peterborough has appointed Mark Osborne its new rep for the West Midlands, Gloucestershire and South Wales. Mark, 22, is married with two children and lives in Hereford. He will be working from the newly opened West Midlands depot at Hartlebury near Kidderminster, under area manager Edward Hewitt.

The winner of a £200 luxury hamper in the SISIS crossword competition was Derek Neve, head greenkeeper at Carlisle GC. Runners-up, who each received a case of wine, were: J. Brown (West Lothian District Council), R. Miles (Erskine GC, Bishopton), K. Beck (Middleborough Municipal GC), D. Dobins (Nottinghamshire County Council), J. Fazackerley (Preston Sports Club), T. Trench (Sandiway GC), G. Hughes (Abergele & Pensarn GC), M. Moore (Oxford United FC), J. Mclean (North Bedfordshire Borough Council), R. Hebbert (Slough Corporation), D. Topliffe (London Borough of Greenwich), R. McLaren (Worcestershire CCC) and D. Davis (West Wiltshire County Council).

Last year, Ransomes Sims & Jeffries topped the £1 million barrier in two more export markets on opposite sides of the globe. Sales to Australia were up 25 per cent and, shipments to France were 40 per cent up on last year. Ransomes France spent two days setting up recently, learning more about the sales features and servicing of the range.

The AGM of the Amenity Grass Marketing Association was held in London recently. Reporting the association's 1985 activities, David Hamilton, secretary of the association, commented on the close liaison that existed between AGMA and the STRI. A collaborative trial of ryegrass cultivars at various sites is to continue during 1986. Elected for the coming year were Brian Hubbert as chairman and Mike Beattle as vice-chairman.

The St Mellion Golf and Country Club in Cornwall has taken delivery of the new TORO Reelmaster 350D - the first to be supplied to a golf club in the south-west. Michael Britton, manager of Robertson of Newton Abbot, said: "We thought that the 350D was the best capable of standing up to the climatic conditions that prevail in the West Country." The TORO Reelmaster 350D is a 38hp diesel powered ride-on mowing machine with five cutting cylinders, which can be used together or individually in any combination, with an 11ft width of cut. Special features include variable hydrostatic drive to the wheels and variable speed drive.

"Continued on page 23..."
The growing force in grass care

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When it comes to turf maintenance, one name is universally associated with the highest quality equipment – RYAN.

Look at the versatile range of RYAN Power Rakes. Three basic models are available. Standard with 5hp and 8hp engines. And heavy duty with a powerful 10hp engine. Fitted with a choice of easily changed blades and optional spacings, they’re versatile performers for breaking up cores, dethatching or slicing fine turf areas.

Quality-built through and through – that’s RYAN. Now backed by VICTA in the UK.

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Stanmore Hill Works Stanmore Middlesex Tel: 01-954 4171.
to the cutting cylinders.

Twin main driving wheels with large low pressure tyres and low centre of gravity enable the machine to operate on soft ground and to mow steep slopes. Rear wheel steering aids manoeuvrability in awkward areas, where the variable cutting width is advantageous.

At the TORO companies annual distributor convention held in Minneapolis recently, Lely (UK) was honoured for the best overall performance in the area of international after sales service for both the domestic and professional product ranges and participation in all of TORO’s service programmes in service dealer coverage.

TORO also has manufacturing plants in California and Canada, together with joint production facilities in Venezuela, New Zealand and Bury St Edmunds in Suffolk.

Lely (UK) was formed by John Hawkins in 1968 as the UK marketing operation of Lely Industries, a manufacturer of agricultural equipment in Holland. Lely is also the distributor for Iseki tractors from Japan and Beaver attachments produced in Sussex. The company has been the UK distributor of TORO for two years.

Some £25,000 is to be spent on The Belfry’s Derby Course to bring it into line with the Brabazon. A programme of landscaping, tree planting, deep-spiking, topsoil and peat application and additional drainage, including bunkers, is underway. The 6,077-yard Derby was designed for those seeking a less-demanding test than the Brabazon.

Golf Landscapes is building and irrigating a new 18-hole public golf course on Canvey Island, Essex. The work is valued at £220,000.

The course utilises PM Greens, the technique based on the Prunty Mulqueen patented system, containing an intensive-ly drained formation with a sand/peat rootzone. A similar construction will probably be us-

A fully automatic TORO irrigation system will be provided to the greens and tees and is to be of a single head control type, similar to that recently installed by Golf Landscapes at the Berkshire. Golf Landscapes will maintain the new golf course under a contract agreement until later in the year when it will be handed over to the local council.

Some £25,000 is to be spent on the tees.

Brian D. Pierson (Contractors) is constructing a new 18-hole golf course at Milgate Park, near Maidstone in Kent, as well as reconstructing seven greens and 12 tees at Weymouth GC as part of a £250,000 project.

The company recently completed major earthmoving and shaping of clubhouse surrounds and a new practice area for Broadstone and is currently reconstructing tees at Marlborough and working at Royal Lytham and St Annes.

Ram Kumar, managing director of Toro International, Bob Orthey, marketing director, and John Hawkins, managing director of Lely Import.
New National Sales Manager makes history at Supaturf!

For the first time in the 25 year history of Supaturf Products Limited, they have appointed a National Sales Manager for England and Wales following the nationwide expansion of the depots. The man appointed to the post is Frank Crookson, previously Supaturf’s Northern Area Manager, who has worked for the company for the past 6 years.

Frank, who is 52 and has a 23 year old daughter, lives with his wife Joan in Birdwell, not far from the Normanton depot for which he is responsible. He is interested in football and motor sports — particularly Grand Prix and says, "I am looking forward to working with the Supaturf sales staff — I feel we represent an excellent mixture of youth and experience, and it will be my responsibility to blend these qualities into a first class team".

It’s all in the good book!

Supaturf have now produced a product guide, setting out in sections all the products supplied by Supaturf, from fertilisers and chemicals to sports equipment — together with prices and details of delivery etc.

Supaturf help pave the way in weed control

New cda (controlled droplet application) CLEARWAY from May & Baker can be used anywhere that total long-lasting weed control is required — e.g. footpaths, along fence lines and around the base of established trees. Clearway controls most annual and perennial broad-leaved and grass weeds in amenity and industrial non-cropped land. cda VERDONE from ICI controls all common broad-leaved weeds in turf within two to four weeks. Verdone is absorbed by leaves and roots and interferes with the normal growth regulation process — as a result, weed growth becomes abnormally stimulated and distorted before the weeds die.

These products now available from Supaturf.

Spring Fertilisers

Supaturf fertilisers are made from a mixture of carefully selected organic materials and mineral fertilisers in such a way that the plant food is released in a controlled pattern similar to the normal growth pattern of plants to ensure that the plant has food available during the whole seasons’ growth. Unlike some chemical fertilisers, Supaturf’s are safe to sow with seeds and do not inhibit germination. Supaturf SS/A, SS/D, SS/P and all pelleted fertilisers such as PS/OP are available from your local depot.

NEW BASF SLOW RELEASE FERTILISER

The recently introduced range of BASF Compo Floranid slow release fertilisers is meeting with approval and good results are being obtained throughout the UK. Available in 25 kilogram bags — contact your local depot, today.

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Looking After Our Heritage At The Home Of Golf

The trustees of the St Andrews links, charged by act of parliament with the efficient stewardship of all aspects of the links, have initiated action that will shape the future of golf there well into the next century.

At a joint meeting of the St Andrews Links Trust and St Andrews Links Management Committee, it was agreed that a comprehensive long-term plan should be prepared to 'cover all facets of potential development and improvement of the link's.

Golf clubs in St Andrews, including the Royal and Ancient, as well as the North East Fife District Council, St Andrews University and the Scottish Tourist Board, were invited to contribute.

It is expected that outline proposals should be available for discussion in the spring. Anyone with views on the matter is invited to write to the Secretary, St Andrews Links Trust, St Andrews, Fife KY16 9JA.

Meanwhile, the St Andrews Links Trust has sold the Rusack’s Marine Hotel to Trusthouse Forte. The 50 bedroom hotel offers views of the Old Course’s 1st and 18th holes and was acquired by the trust in 1982 to provide showers, changing and locker rooms and dining facilities, all of which came to fruition when the Links Rooms were opened in 1983.

The sale will provide substantial capital for the St Andrews links development plan. The priority is to ensure an improvement in the basic health and quality of the turf and, to this end, recommendations by consultant agronomist Jim Arthur are being followed.

At least £200,000 will be spent solely on the turf, over and above normal maintenance costs, up to 1987. Additional Verti-Drain equipment, together with maximum recommended volumes of Farmura and increased use of Fenpeat, are expected to ensure the return of exemplary playing surfaces to all St Andrews courses.

Good News All Round For Souter

Souter of Stirling (Sportsturf) has been appointed sole Scottish distributor of Rigby Taylor’s Mascot range, which now includes Ultra Sonic, a combination of simazine and glyphosate, as part of the Sonic (glyphosate) line.

Souter is to design and build a new golf course in the Spey Valley. And, after its success with the Maltese national football stadium, the company has been awarded contracts for seven more pitches. Souter has now installed five underground heating systems at soccer grounds and has recently been appointed technical consultant and constructor of the first new racecourse to be built in the UK since the early 1950s - at Musselburgh.

To cap it all, John Souter has been made an honorary member of the Sports Turf Manager’s Association of America and addresses the association’s conference at San Francisco in February.

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Not for ICI scientists the soft option. Our boffins have spent several years developing this range of Fine Turf Fertilizers. And during that time they have spared no effort and avoided no contortion to get everything right.

The final results are up-to-the-minute answers to effective turf nutrition. The fertilizers provide year-round care which is easy to apply and very labour efficient. Some of the products incorporate DIDIN* a new idea in long-term feeding—some have magnesium and seaweed extract—all of them are formulated as organic-based mini-granules.

We've included a new long-lasting nitrogen stabilizer called DIDIN into 'Spring & Summer Feed' and 'Weed & Feed'. Initial colour response is good without excessive stimulation of leaf growth. But, more importantly, DIDIN steadily provides nitrogen for up to three months after initial application—long after ordinary fertilizers have stopped working.

*DIDIN is a trademark of SWK Trostberg AG*
Another new idea is 'Nitro-Iron' which contains no phosphates. The 7:0:1 formula is boosted with 3% iron to provide good green up and efficient moss control.

For winter hardiness there is 'Autumn & Winter Feed'. In this formula the major plant foods are supplemented by both magnesium and iron.

As you can see our boffins have bent over backwards producing the right fertilizers for today's market - the least you can do is try them.

Fine Turf Fertilizers.
Alginure's Latest Additive

A new product has been introduced to supplement the benefits of Alginure Soil Improver and Alginure Root Dip.

The company's objective was to develop a base liquid that retains a higher proportion of gums (or solids). Such solids are available in Alginure Soil Improver and form the essential polysacharides that are a vital source of food for soil microorganisms, which functions include the digestion of organic matter that produces humus and, in turn, releases plant foods.

The new Alginure base liquid has a solids content in excess of 25 per cent, almost double that of other organic liquid feeds, the company says. This can be enriched, as needed, by the addition of specific plant foods to meet the requirements of particular applications, such as turf-care, tree and shrub maintenance and other horticultural uses.

The company's first such formulation - Alginure Turf Liquid - will be introduced at Turfscap e '86, where samples of the product will be available for trials and testing.

The liquid is economical, with an application rate of 200 litres per hectare, diluted in an equal amount of water, and is compatible with existing herbicides and fungicides. This usage equates to 16-20 litres per average golf green.

Full details from Alginure Products, Bells Yew Green, Tunbridge Wells, Kent TN3 9BT. Tel: 089275 664.

Mountfield Mounts New Campaign

The Mountfield Triple M is on the market, with an all-new electric start, priced £2,599 (plus VAT).

Wide, 'turf saver' tyres will carry the tractor safely over rough ground. A low centre of gravity keeps the Triple M stable on most slopes and the machine's manoeuvrability means it can mow close to any obstruction.

Power comes from an 8hp Briggs and Stratton engine, guaranteed for two years, while its new electronic magnetron ignition system has a five-year warranty. Five forward gears and one reverse give a choice of mowing speeds up to 6mph.

Cutting height is adjustable between 1in and 2in, while the cylinder positions can be varied to give up to 66in of mowing width on almost any grassed terrain. All adjustments can be made quickly and simply. The cutters are spring-assisted for easy raising and for extra safety they cannot be engaged when lifted or when the seat is unoccupied. They can also be removed, without tools, to create a year-round tow truck or tractor.

Full details from G.D. Mountfield, Reform Road, Maidenhead, Berks SL6 8DQ. Tel: 0628 39161.

A Compact Combination

The Lely Iseki 2140 4WD is now available with spray equipment from the Berkshire-based company Frank Driver. Designed for use with a standard three-point linkage, it can also be supplied as a trailed unit.

In the horizontal position, the booms can spray a 10ft width with ease. Vertically, the equipment can negotiate the narrow aisles of a greenhouse or orchard. The mechanical pump is direct-driven from the Lely Iseki tractor pto and delivers a working pressure of 40psi. A pressure control valve and gauge ensures constant results with a minimum of setting-up time. Hydraulically driven pumps are an optional extra.

A full choice of quick-release nozzles are available, providing total control from fine spray to flood. Any combination of spray nozzles can be set to give a left, centre or right-hand spray. Additionally, one or both booms can be positioned vertically.

The 25 gallon tank incorporates an agitation booster for consistency and a delivery filter is fitted as standard. Also available is a new mini-sprayer fitted with micronair heads.

Full details from Lely Iseki Tractors, Crosshall Works, 0t North Road, Eaton Ford, Cambs PE19 1QH. Tel: 0480 76971.
Pruning tree branches and treating subsequent wounds

At most clubs, the greenstaff are hard pushed to carry out all the required maintenance and cultivation of turf, let alone attempt to keep trees in first-class condition. This means that often the only work carried out is the removal of branches to favour the growth of other plants.

By David Francis

Removing branches permits light to the grass and herbaceous undergrowth and also helps increase air circulation, which improves the turf's quality. Occasionally, other factors influence branch removal, such as preventing dead or unsafe branches causing damage to golfers and property, and also allowing access to golfers.

Pruning only out of necessity is probably no bad thing for trees, as the improper pruning of branches is one of the most damaging injuries they can have inflicted upon them.

The bark acts like a skin, protecting the inner wood from micro-organisms that can cause deterioration. A poorly made pruning wound can expose the heartwood of the tree trunk and it is often invaded by fungal organisms that can, in time, cause decay, instability and the tree's possible death.

In the past, it was recognised arboricultural practice to remove branches as flush to the trunk as possible and then to paint the wound with a proprietary sealant with the intention of protecting the wood until it had callused over.

However, research work carried out in recent years by Dr Alex Shigo of the United States Forestry Service suggests that trees are able to chemically set up boundaries of resistance against advancing fungal pathogens and prevent the fungal decay reaching the trunk. This wall of resistance appears to occur in the branch collar which, on most trees, appears where the branch joins the trunk.

The main problem in the past has been that the existing method of cutting branches flush to the trunk removed this branch collar and so removed the site of resistance to decay organisms. Hence, the fungal pathogen gained access into the heartwood of the trunk and the decay process began unchallenged. So, to apply these theories on a practical basis, the removal of branches growing from the trunk should take the following course.

First, as in any branch removal, the main weight of the branch must be removed before the final cut is made. The branch should be undercut approximately one third of its diameter (A). This will prevent the branch from tearing the bark away down the trunk. Then, several inches out from the undercut, make a top cut (B) down through the branch. This will remove the main weight of the branch, leaving you with a stub that must then be removed.

The final cut should be made just in front of the branch collar and not through it (C) and never through the branch bark ridge as this will expose the trunk's inner wood. Leaving this collar will result in the protective boundary being left intact and also a smaller wound to the tree than would result with flush cutting.

Theoretically, wound sealants were applied for a

Continued overleaf...
number of reasons. It was thought they would act as a physical barrier over the exposed wood, preventing fungal spores from entering. However, various authorities have now suggested that fungal spores may infect the wood before the dressing can be applied and, in the long term, entrances for fungal spores can still appear as the sealant cracks or insects bore holes through it.

So, long-term protection is practically impossible at present. Applying wound sealants with fungicidal properties to chemically destroy decay fungi is also under question. A fungicide that effectively controls fungi already infecting the wound before application and that also gives long-term protection against decay fungi would be required. It appears that none of the wound sealants presently available can effectively carry out both tasks. Certain wound sealants have been found to be beneficial in improving callusing around pruning wounds. This is thought to occur because of the protection the dressing gives exposed cambium, the cells that generate callus growth, from drying out.

Some people find the wounds caused by branch removal unsightly and wound dressings do improve the appearance of ornamental trees. I find the idea of dressing wounds of trees on golf courses for cosmetic purposes only impractical and expensive. So, it would appear that, at present, the dressing of pruning wounds on amenity and forest trees on golf courses is not a practical proposition when aiming to protect the tree and this method of not treating wounds, allied to the pruning method explained, is the most helpful type of branch removal.

Of course, it should be remembered that good formative pruning of trees while they are young can prevent problems when they mature. This means looking at your trees, trying to identify branches or habits of growth that may cause subsequent difficulties and dealing with them accordingly.

A branch removed when a tree is younger causes a smaller wound, which heals quicker, than one that results from waiting for a tree to mature and then removing it.

ANTHRACNOSE (Colletotrichum graminicola)

Although this disease usually affects Poa annua, it can also occur on various species of grass. It is easily recognised because the fungus produces a black lesion at the base of the sheath, which can be seen by removing the older sheaths. The whole root base turns black and the growing point is often destroyed. Shoots affected turn yellow with the youngest leaf turning red. However, the presence of the black lesion is particularly characteristic as the disease is often seen when the soil is very compacted. It follows that regular aeration should be carried out to prevent the build up of excessive compaction. Low fertiliser application is also associated with the incidence of this disease.
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SPOTLIGHT ON S.T.R.I.

Greenkeeper is pleased to report that the Sports Turf Research Institute have received a donation of $12,000 from Titleist/Acushnet, the American ball manufacturer. Last year the R&A generously made a grant to the S.T.R.I. so they could look into the question of the golf ball's actions on turf, which had been prompted in no small part by the investigations of Nick Park whose article "Spin the Critical Question" (Greenkeeper July '83) highlighted how little was known about the ball's behaviour once it hit the turf.

Last September a student, Steve Haake, from Aston University, under the supervision of Dr. Alastair Cochran the R&A's balls & implements expert, commenced a three year programme into the interaction between ball/turf. However, the S.T.R.I. found themselves short of some vital equipment which is where Acushnet came to the rescue. No doubt the makers of the Titleist ball used by so many leading players will be surprised by the findings when the research is complete. It is certain to change a great deal of current thinking.

LINKS EXPORT

In an exciting development Golf Landscapes of Brentwood have been asked to advise on the establishment of a Links in Northern California close to the world famous Pebble Beach and Cypress Point courses. To be known as the "Links at Spanish Bay" it is the brainchild of Links loving Tom Watson and Sandy Tatum former President of the U.S.G.A. Howard Swan, Golf Landscapes Director has already made one visit to the site, where work is underway, to advise on grasses and top soil. It is hoped that the Company will sign a Management Contract to appoint the Course Manager and Assistant for an initial year period. Commenting Howard said "I am particularly pleased that Britain has been recognised not only as the home of golf but of the golf links as well. The key to the success of Spanish Bay will be the implementation of a true links management programme. So it will largely be a question of exporting out turf management skills to the U.S., happily reversing the trend of recent years."

GROUNDSMAN OF THE YEAR

The Institute of Groundsmanship have opened up their annual competition to all comers, the details appear on page 15 of this months issue. Greenkeeper was delighted to be asked to assist in promoting the competition, and given our excellent readership we are sure it will be a Greenkeeper who will win — So don’t delay, enter right away!

P.G.A. PROMISE

In the letter to Greenkeeper George O'Grady, Managing Director of P.G.A. European Tour Enterprises Limited has kindly drawn our attention to a couple of points concerning the Tours connection with I.C.I. Professional Products. They are that P.G.A. European Tour Enterprises Limited is "the marketing arm" of the Tour and not in anyway connected with the P.G.A. and thus not concerned with the recent amalgamation discussions. That "the excellent image of the Tour gives I.C.I. Professional Products a chance of greater visibility in the market place” and that "we do not wish to direct training policies or procedures but do wish to either help research or to help individuals take advantage of current research". No doubt the Greenkeeper Training Committee will be knocking on Mr O'Grady’s door very shortly.

MAN ON THE MOVE

David Jones Vice President of E.I.G.G.A. has been appointed by Country Club Hotels to the post of Course Manager at St. Pierre Chepstow.

David who was previously at Purdis Heath, Ipswich will have the first European Tour tournament to contend with when the Epson Grand Prix is staged at St. Pierre from 8-11 May.

We wish him well and trust that his new appointment will still leave time both for his E.I.G.G.A. duties and to write further for Greenkeeper in his well known lively style.

HERE COMES THE MOWERS BUT WHERE'S THE GRASS!

You can be sure it's there somewhere underneath all that snow and you can also be sure that it's still growing. The picture above seems a long way removed from warm spring days and fresh mown grass but, just as the grass keeps growing, so Turfland Professional Equipment Ltd keeps working to ensure adequate stocks of machinery and spares are maintained to offer a service second to none. The Brouwer Gang Mowers, imported from Canada by Turfland Professional Equipment Ltd, are the most popular PTO mowers on the market. The versatile units come in 3, 5 and 7 gangs with either fixed or floating heads equipped with 4, 5 or 6 bladed reels to meet all mowing requirements and conditions.

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