

The Official Magazine of S.I.G.G.A. & E.I.G.G.A.

JULY 1986

# Greenkeeper

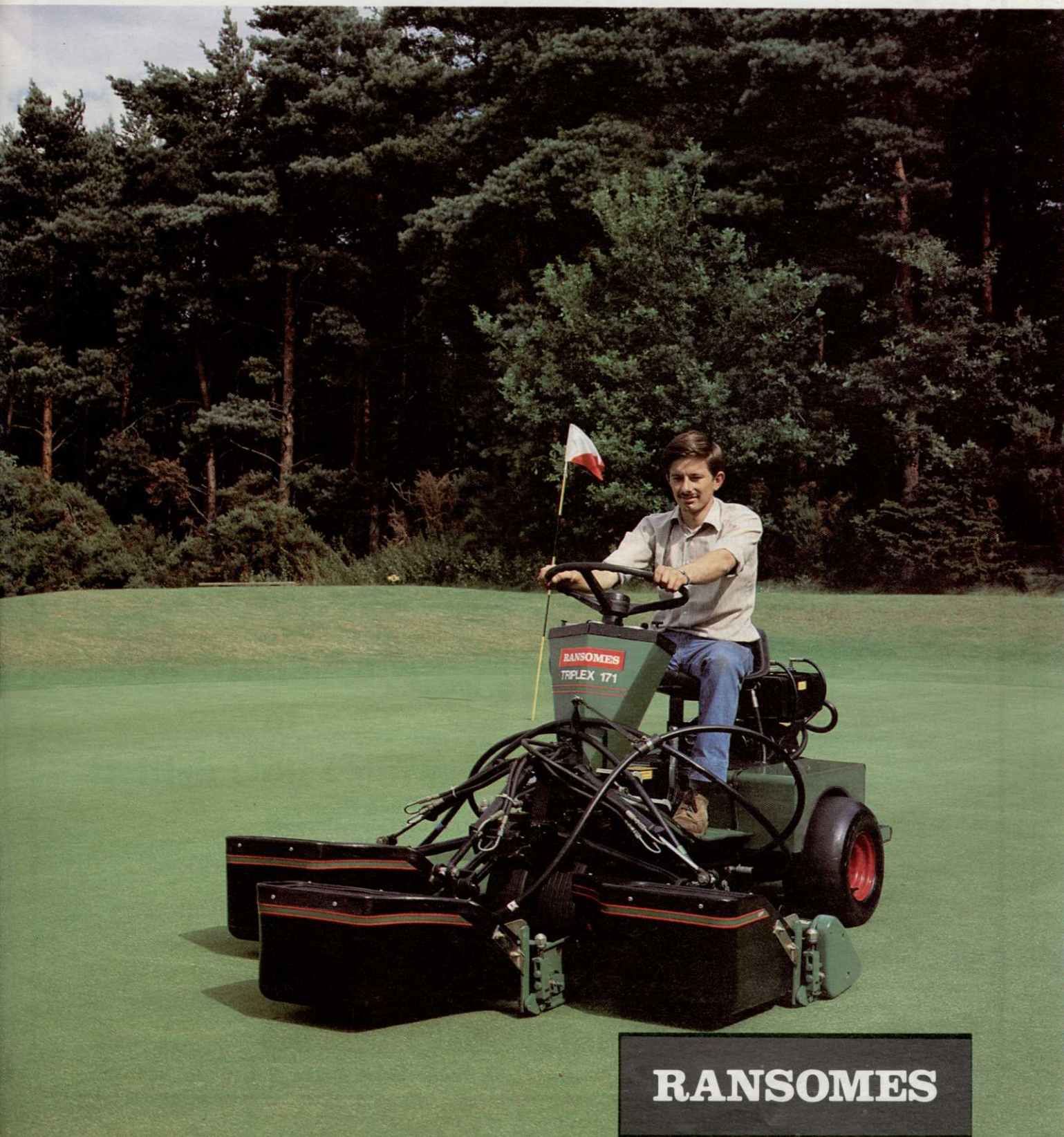
*& The International Greenkeeper*

BULLETIN Nr. 49

12 - P. 9 to  
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JULY 1986

## Front Cover:

A Ransomes Triplex 171, fitted with green-cutting units.

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Training Committee

## B.I.G.G.A. may not necessarily be better

At the last meeting of the three Greenkeeping Associations the final draft of a new Constitution was agreed. It was also agreed to call an Extraordinary General Meeting of all the Associations — provisionally the 12th August — when each member will be able to vote on the proposals.

The proposed resolution is as follows:-

"It was agreed as follows:

- a) That the Constitution of the proposed British and International Golf Greenkeepers Association a copy of which has been circulated to each member is approved.
- b) That the English & International Golf Greenkeepers Association shall be disbanded with effect from the 1st January 1987 and the assets of the Association transferred to the British & International Golf Greenkeepers Association.
- c) That this resolution is conditional upon the British Golf Greenkeepers Association and the English & International Golf Greenkeepers Association and the Scottish & International Golf Greenkeepers Association passing similar resolutions prior to the 1st November 1986."

In the draft Constitution the objects of the new Association are:-

- a) To promote and advance all aspects of green-keeping.
- b) To assist and encourage the proficiency of members.
- c) To arrange an International Annual Conference, educational seminars, functions and competitions.
- d) To raise money for the benefit of the Association.
- e) To maintain a benevolent fund.
- f) To act as an employment agency.
- g) To provide a magazine.
- h) To collaborate with any body or organisation which may in any way benefit the Association or its Members or with which there may be a common interest.
- i) To carry out and perform any other duties or responsibilities which shall be in the general interests of the Association or its Members.

It is to be hoped that all Association Members will give serious consideration to the proposals and no doubt some searching questions will be asked.



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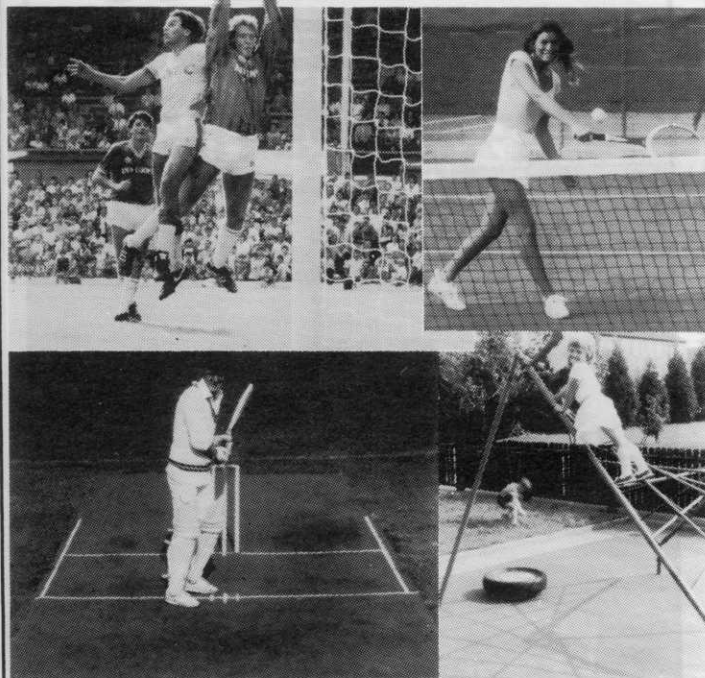
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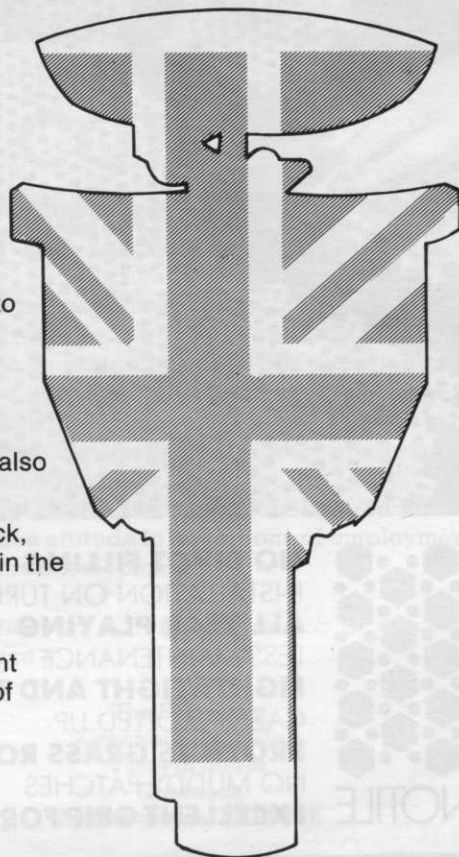
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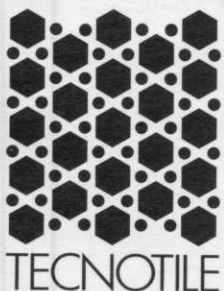
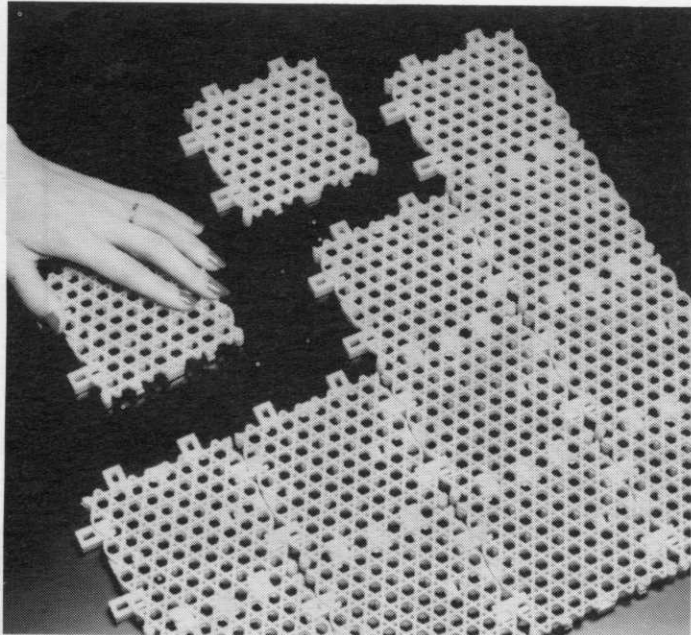
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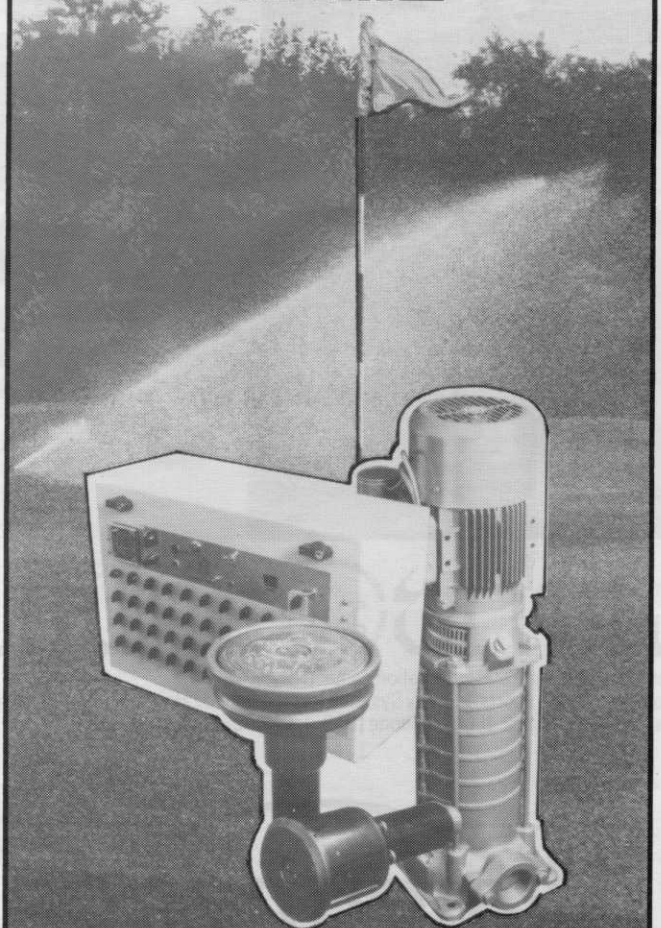
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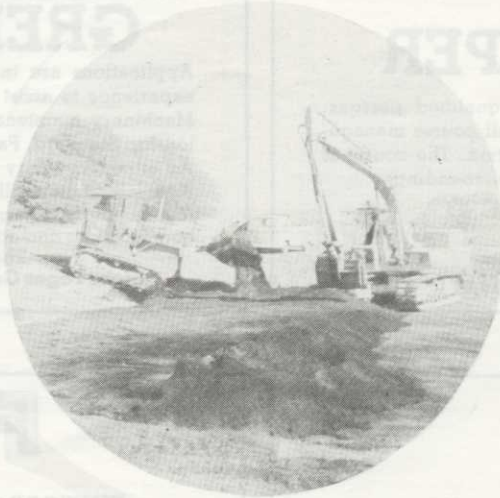
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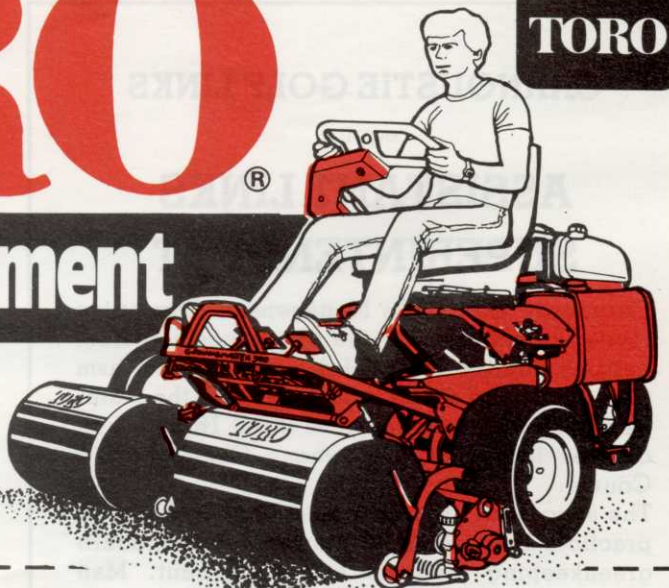
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# BOOKS FOR GREENKEEPERS AND GREEN COMMITTEES

THE most frequent question I am asked by young greenkeepers is: where are the books we can study? I am afraid that until we have a definitive text book, we must seek our information where we can find it, not just in books specifically devoted to greenkeeping, but those on golf, golf courses and basic science, writes Eddie Park.

I started to collect books on golf and greenkeeping 35 years ago when the price of old books was measured in pennies. Prices have now escalated into hundreds, sometimes thousands, of pounds. Some books are strictly for collectors, but there are still bargains to be had.

In the case of books on golf greenkeeping, it is clear that the small potential market caused publishers to play safe and ask authors for a general volume covering also garden lawns or other sportsgrounds.

This has led to some unsatisfactory compromises and we must also bear in mind the fact that individual books reflect the fashionable methods of the time - using a steam roller (1906), spreading lime (1926) or agricultural granular fertiliser (1978) and these should be recognised as the blind alleys they undoubtedly were.

*Country Life* magazine was at the forefront in the early years but, naturally enough, the earliest books came from seedsmen and contractors. Martin Sutton produced a book of grasses (mainly agricultural) with beautiful illustrations over a century ago. The first edition of *Lawns And Sportsgrounds* appeared in 1892 and revised editions were still appearing seventy years later. A useful buy.

The same author added *Layout And Upkeep Of Golf Courses And Putting Greens* in 1906.

In these very early days, we find golf greenkeeping chapters in golf books, such as Gardon G. Smith in his *World Of Golf* (1898) and Horace G. Hutchinson in *Badminton Golf*.

Hutchinson, the first amateur

champion (from England), became a prolific writer and in 1906 published *Golf Greens And Greenkeeping*, which was a series of essays by the experts of the day. They range from greenkeepers to architects and, unfortunately, tend to contradict each other.

Sutton again contributed a chapter to Harold Hilton's *Royal & Ancient Game Of Golf* (1912), dealing with the establishment of golf courses on dry and sandy soils. Present-day research on this topic would find his methods of interest, including a nurse crop of rape to bring up fertility for germination.

Sutton also produced his *Book Of The Links* in 1912 and as the game gathered momentum, Reginald Beale, director of rival constructors Carter's, produced two books, *Lawns For Sport* (1924) and *The Book Of The Lawn* (1931). These are of more than passing interest, as they display the then perceived notion that agricultural liming would help golf courses (there's a marvellous picture of the Royal Mid-Surrey Golf Club being 'reconditioned' with the stuff).

We know now that all this caused such widespread damage that the Board of Greenkeeping Research was established. Just before this, Norman Hackett (the founding secretary of Bingley) produced a small book entitled *Soil Acidity - The Vital Importance Of Top Dressing* (1928), which sets out the 'cure' for over-liming - the acid theory. J. MacDonald and William Wood were other contractors and purveyors of fine turf who produced books in 1923 and 1934.

A.J. MacSelf and T.W. Sanders were, at times, editors of gardening magazines and produced books on *Lawns And Sports Greens* in the early 'thirties and *Lawns And Playing Fields* (1940) by F.J. Reed is often available and is a useful general reference.

In more recent times, there has been quite a spate of smaller books aimed ostensibly at the subject of lawns, but with some

useful information for golf greens. Authors such as David Pycraft (of Wisley), Roy Edwards and, most recently, Bob Palin (director of Sutton's) and George Shiels (Writtle College, Essex) have brought the subject up to date.

I fear that I've strayed from my subject of golf greenkeeping and I have omitted the real heavyweight in the field. *Practical Lawn Craft* by R.B. Dawson, the first director of Bingley, initially appeared in 1939 and continued through several editions. In his declining years, Dawson was ably assisted by W.H. Bartle (also of the STRI) and this book should find a place in everyone's library.

It does seem a bit dated in parts and it is not entirely helpful with our modern self-inflicted problems of Poa Annua domination and thatch, but it nevertheless contains a great deal of useful information.

Dawson also produced a Penguin Handbook on *Lawns* in conjunction with the Royal Horticultural Society and one of his former assistants I.G. Lewis wrote *TURF* in 1948. To close the Bingley connection, it should not be forgotten that Dawson's successor J.R. Escritt published an *ABC Of Turf Culture* in 1978 and *Lawns* in 1979.

The two most interesting American text books are *Turf Management* (1950) by H. Burton Musser and *Golf Course Management* (1982) by Jim Beard, both sponsored by the USGA. Although they show an increasing divergence from British requirements, they are packed with interesting thought and information and we simply have to admire the commitment and leadership that the USGA has shown.

An interesting paperback I found is *Lawn Keeping* (1976) by Robert W. Schery, which manages to blend a good deal of basic science with practical information.

● This series will continue with books on golf and golf courses.



## Obituary

It was with deep regret that we received news recently of the death of Steve Donnachie. Steve, a native of Maybole in Ayrshire, served with the 4th and 1st Battalions The King's Own Scottish Borderers during the last war and was a popular personality with his fellow regimental members.

Severely wounded in action, Steve eventually finished his army life as company sergeant major. However, he retained his links by way of reunions and also in his work with the army cadet force in Banchory after the war.

His greenkeeping career started at Banchory, where he worked for 12 years. From there, he moved as head greenkeeper to Royal Deeside GC, where he remained for 26 years. He was much respected for the work he carried out improving and keeping the course in excellent condition.

He was a past-president of SIGGA and an enthusiastic member of the north section for many years, where he served on the committee and as chairman.

Steve was a gifted man in many ways. Many of us remember his poems and sketches, which appeared from time to time in greenkeeper magazines. He was also a great character, a fund of humorous stories and a personality in his own right.

He will be sadly missed by his many friends in SIGGA, especially those in the north section, and, no doubt, his name will crop up in many greenkeeping conversations for years to come.

Steve is survived by his wife, son and daughter and our sympathies are with them at this time.

## Executive Report

The executive held a meeting on June 3, at which a comprehensive agenda was covered. The draft constitution for the proposed new association was discussed

thoroughly and a few alterations mooted for the next meeting.

SIGGA's representatives at that meeting will be president W. Woods, vice-president J. Kidd, past-president J. Neilson and general secretary J. McKean.

Organisation for the national tournament was finished and we look forward to a great day at Downfield.

The Open Championship arrangements were discussed fully and everything seems to be running to plan. SIGGA will again have a tent and we look forward to continuing the successful venture that started at St Andrews in 1984.

Cecil George gave a report on education, indicating that all colleges were pleased with the standard of greenkeeper training. Section secretaries gave reports on outings and activities and it was pleasing to note that membership is still rising.

The president stated that he had attended all the section events, which he found well-organised and attended by well-dressed greenkeepers and he would like, on behalf of the general secretary and himself, to thank all the sections for their hospitality.

*Elliott Small.*

## Central

At the April committee meeting, members were given an updated report on the new greenkeepers' association. Numerous questions were raised by the committee and, after hearing the chairman and secretary's answers, it was felt that the steady progress being made was in the best interests of the profession as a whole.

It was decided that the two trophies presented to the section by the Australian Mutual Provident Assurance Company would be awarded to the best third-year student at college within the section and to the player with the best combined scratch score over the spring and autumn tournaments.

Golf outings for 1987 were proposed to Leven Thistle in the spring and Callander in the autumn.  
*J. Crawford.*

## East

With the problems of last year all ironed out, the section has settled down. Membership stands at 70 fully paid up with a few still to come in.

The annual spring outing was held at North Berwick GC. A windy day did not deter the 60 members, guests and trade. We were delighted by the presence of the SIGGA president, past-president and general secretary, who presented the prizes.

Our thanks go to North Berwick GC for the courtesy of the course, head greenkeeper D. White for the condition of the course and the clubhouse staff for the catering.

New dates for diaries are: the national outing at Downfield, Thursday August 21, greenkeepers and greens convener tournament, September 24, autumn outing to Royal Musselburgh, Tuesday October 28 and a winter outing to Winterfield, Dunbar (date to be announced).

The annual match versus the north east of England has not been finalised yet, but should be in early October. The first winter lecture will be held in early November and will be a visit to Oatridge College.

*W. Blair.*

## West

A joint seminar involving the west and Ayrshire sections was held at Inverclyde. Speakers were W. Lockie, who gave his views as a professional golfer, and W. McLaren of the Ayrshire Golf Union.

D.G. Allan Oils presented a talk and then a video of how an engine and its lubrication work.

Our spring outing was held at Cowglen - some 40 participated and all found the course in fine shape.

The education committee has been very active. A meeting between them and the Woodburn House principal has taken place and the winter programme of college lectures is well in hand.

*A. Connell.*



## South Wales

Further to the notice in last month's *Greenkeeper*, the branch's summer golf tournament and evening lecture at Royal Porthcawl will take place on Monday July 28 and *not* July 29 as previously announced.

Full details of the day, which is to be sponsored by Rigby Taylor, can be had by contacting Bruce Jamieson (tel: 0656 771820), David Lynn (065671 1307), Mike Wilson (05546 3708) or Raymond Hunt (0656 771335).

The cost for EIGGA members is £9.50 - guests £11. For members wishing to attend the lecture only, there is no charge.

The branch is to hold a two-day educational seminar at the Abbey Hotel, Malvern, Worcestershire on November 1-2. Speakers, most of whom will be greenkeepers, are being sought.

Malvern is located in a picturesque part of the country and with its relatively central location close to the motorway network, it is hoped that members from other EIGGA branches will attend.

*Raymond Hunt.*

## Surrey

The spring tournament was held at Hankley Common Golf Club. Our thanks go to the club for the courtesy of the course and use of the clubhouse, Ian McMillan and staff for presenting the course in first-class condition and the clubhouse staff for an excellent meal.

Thanks also to Keith Cleverly, whose company ICI sponsored the event, and all the other trade members present for providing a superb prize table.

The result of the 36-hole tournament was: Best net M. Connors (12) 140, 2nd net P. King (18) 147, 3rd net D. Lenham (12) 151, 4th net P. Weston (13) 151, Best gross B. Turner 147, Best am S. McMillan (12) 70, Best pm R. Summers (24) 68, Over 12 handicap J. Borja (7)

151 and Veterans' Cup R. Johnson (16).

The Cresta Cup has also been played and our thanks go to New Zealand GC and the artisan's section for the use of the clubhouse. Also thanks to J. Liddington and staff - the course was looking and playing superb - and Maralyn Johnson for the much-needed meal.

The result of the Cresta Cup was: 1st P. Doughty (24) 42 points, won on back nine from P. Pearse (6) 42 points, 3rd M. Connors (17) 41 points, 4th J. Jennings (20) 38 points.

Our next meeting is the McMillan Tankard at Sunningdale on August 8. Send in your entry forms as soon as possible, please.

Finally, on behalf of all Surrey members, I would like to wish R. Johnson and his wife Peggy a long and happy retirement.

*Paul Pearse.*

## North-West

The joint EIGGA/BGGA caravan at the Southport show proved a success with all present having an enjoyable time entertaining many visitors. Many thanks to everyone concerned, especially Terry Adamson for the caravan and all his hard work.

The golf match at Chester was won by the hosts  $4\frac{1}{2}$  -  $\frac{1}{2}$ . Well done Dave Lucas and Len Sproston for gaining half a point!

Thanks again to the captain and

secretary for the use of the course and clubhouse and congratulations Len for the excellent condition of the course.

*Guy Cannings.*

## Kent

The next golf meeting will be at Canterbury GC on Thursday July 24, starting at 3pm. It would help if those wishing to play could give me a call on Whitstable 266089 beforehand.

The other golf meeting is at Cobtree Manor on September 9. More details later.

Our big event this year will be a one-day seminar at Broome Park on October 15. At the time of writing, the following speakers are expected - Nick Park, Jack McMillan, Martin Hawtree, Chris Mardon and Walton Heath secretary Bill McRea.

All are giving up their time to talk, so please let's have a full house. The last seminar we held at Broome Park was our biggest success to date and this year's event could well be a sell out, so when you receive your ticket application form, reply promptly.

Starting at 9.30 for ten, with morning coffee and a hot lunch, the cost is £12. There will be a discount of ten per cent for clubs that pay for their entire greenstaff to attend.

Please make a note of all these dates in your diary. More news of Kent greenkeeping next month.

*John Atkins.*

Fife Regional Council - Education Committee

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# FERTILIZERS ON FINE TURF

## Facts Not Fiction

By P. Hayes, Ph.D, NDA, C.Biol, F.Inst.Hort. and J.H. Arthur, B.Sc.(Agric.)

TOO many misleading statements are being made about the use of fertilizers on fine turf and especially suggestions that there is no agreement by scientists on what fine turf requires. This is partly caused by the different demands on different grasses and what applies to golf greens does not apply to football pitches.

Some of this controversy is being created by those seeking to increase the sale of fertilizers, who are (rightly, from their viewpoint) concerned about the very low turnover on fertilizer sales made to golf courses and who deny all the evidence available about the harmful results on the quality of the turf by excessive use of the wrong type of fertilizer.

It must be clearly understood that we are concerned in golf greenkeeping primarily with two fine turf species *Agrostis* and *Festuca* and 'all the rest are weeds.'

An incontrovertible fact is that the fertilizer usage of those golf clubs with courses in the best order is very, very small - generally little more than £250 per annum per 18 holes and often less. This is borne out by recent checks and is further supported by the fact that the percentage sales of fertilizers in relation to other products by the leading suppliers to golf greenkeeping is little more than ten per cent of their turnover.

Confusion is a bad basis for any sales campaign and any forecast based on a combination of wild exaggerations of the number of golf courses in the UK (there are many more clubs than courses) and pious hopes that fertilizer sales can be boosted to levels that were used last year on one particular venue, fail to take into account that such gross over-use leaves a legacy of annual meadow-grass dominance and of resultant and almost uncontrollable disease and, looking to the future, excessive thatch production.

One fact beyond debate is that annual meadow-grass (*Poa annua*) is the cause of most problems in greenkeeping. Whether its dominance is avoidable or preventable, may be more subject to debate (though many good greenkeepers can claim to have this pernicious and ubiquitous weed under control).

What is unarguable is that this variable, but basically short-lived species, may give good playing conditions in the few months when it is growing actively, but (as we have seen all too often in the poor growing conditions this spring, with a very delayed start to growth) it is quite incapable of producing tolerable surfaces under 'winter' conditions - and the winter of '85/'86 extended from October to May.

Soft, thatchy, sickly, diseased, uneven, foot-printed, slow, soggy putting surfaces, suffering from wear and winter die back, are succeeded by prolific seeding and drought and wear susceptibility. Panic remedial measures all too often merely aggravate the problem.

The link between *Poa annua* invasion or dominance and the application of phosphatic and potassic fertilizers has been reported for at least 65 years and known for many years before that.

The following two quotes are taken from literature:

'Annual bluegrass (*Poa annua*) invasion was favoured by P and K fertilization and the effect of one was enhanced by the other.' (D.V. Waddington, T.R. Turner, J.M. Duich and E.L. Moberg 1978).

'Phosphorus applications significantly increased *Poa annua* in all plots. Phosphorus interacted with nitrogen by increasing *Poa annua* populations at all N levels, although intermediate levels of N in all combinations with P caused

greater increases in *Poa annua* than plots without P.' (R.L. Goss, S.E. Brauen and S.P. Orton 1975).

A bibliography is given at the end of this article (see page 15).

One incontrovertible elementary principle, on which the whole of the science and practice of greenkeeping is based, is that the vegetative cover of any area in the temperate zones of the world is governed by two factors. One is the soil itself, its physical and chemical characteristics. The second is the management, both natural - e.g. rainfall - and applied, to which that soil is subjected.

If those natural conditions that occur where fine turf dominates are altered, the grass type alters rapidly in response. Such alteration can be very varied from the effects of traffic to the application of fertilizers.

The basic tenet of greenkeeping, which is beyond argument, is that if those conditions that are found wherever fine turf is the dominant vegetative cover are copied, then fine turf will dominate. The basic factors that are the only ones common to such widely varying ecological environments as acid moorland and alkaline limestone heath and downland; tidally flooded salt marshes and arid sandy links; thin acid sandy heathland and heavy clay parkland, in all of which *Agrostis* and *Festuca rubra* form the largest part of the turf cover, are very low soil fertility, particularly in regard to basic nutrients, such as phosphate and potash, coupled with no impediment to deep root development (in other words, free draining and uncompacted soils).

The same fine grasses grow just as well on acid as alkaline soils, on all soil types from sand to clay and over a wide range of soil moisture contents, provided soils are well aerated, drained and low in phosphate and potash.

Alter those conditions – for example, by compaction in a track across fine fescue links turf, or increasing fertility, with rabbit scalds as well as NPK fertilizers, and in comes *Poa annua*, which can only be kept out by the more desirable perennial finer textured grasses if ‘fertility’ is kept very low. This simple logic does not seem to be within the powers of understanding of those involved in selling fertilizers.

It is fully accepted that the actual minimal levels of phosphate and potash have not yet been fully assessed. What is beyond argument is that by far the bulk of golf greens (and fairways) in the UK show far too high phosphate and potash levels and over many years there has been no known reported case of fine turf being damaged by deficiencies of these elements.

Investigations in 1982 at Bingley (reference the *Journal Of The Sports Turf Research Institute*, volume 61, pages 136-140) of soil sample analysis results from 1,800 golf greens showed that, even by agricultural ratings, virtually all soils were far too high in phosphate and potash levels. Less than five per cent showed phosphate levels lower than 60 ppm and there is considerable corroboration from analysis of good-quality golf greens that a figure as low as 30 ppm is more than adequate.

No less than 27 per cent of all results showed figures for phosphate in excess of 330 ppm. Similar figures were obtained with potash and the picture with bowling greens was even more exaggerated. Similar data has been produced in West Germany.

There is no argument about nitrogen being essential, but some disagreement, perhaps, regarding the amounts required, though all would agree on the value of slow-release sources.

This link between high phosphate and potash levels and *Poa annua* dominance has been known all this century, yet fertilizer manufacturers have turned a Nelsonian eye to published research. From the earliest days, even before the First World War, Dr C.M. Murray, working in the winter rainfall areas of South Africa, had observed and reported on this link.

Norman Hackett, whose crusade in the early 'twenties against

the agricultural influences that have bedevilled greenkeeping all this century finally resulted in the establishment of the Research Station in 1929, then the Board of Greenkeeping Research and, since 1951, the Sports Turf Research Institute – backed then, as now, by the Royal and Ancient Golf Club of St Andrews – wrote hundreds of reports to golf clubs condemning the use of phosphate and potash, advising the use of nitrogen only.

Much corroborative evidence of the increase of *Poa annua* in relation to phosphatic and potassic fertilizer applications was available from the trial plots at Bingley, started in 1929. Published in 1975, an eight-year research programme at Washington State University, (Goss, Brauen and Orton) proved that combinations of phosphate at all nitrogen levels increased *Poa annua* in bent grass putting green turf and, incidentally, that high sulphur levels reduced *Poa annua*

### Acid theory

This is the basis of the old acid theory based on sulphate of ammonia and iron, which came into disrepute in the 1930s due to over-enthusiastic applications without correcting associated aeration and irrigation problems. Acidification locks up available phosphates and it is this that reduces the *Poa annua*.

Conversely, we can deduce from US research into the management of *Poa annua* turf (USGA report on *Poa annua* management: Michigan State University Agricultural Experiment Station report number 352 April 1978) that the cultural programme to support a healthy *Poa annua* turf must be based on moderately high levels of soil phosphorus and especially high potash.

Botanical analyses published in the *Journal Of The Sports Turf Research Institute*, volume 57, pages 41-48 show severely decreasing *Agrostis* and *Festuca rubra* percentages in the composition of fine turf swards with increasing applications of phosphate and potash (see figures 1 and 2).

It must be clearly understood that all these comments are made in relation to golf greenkeeping and not to sports turf based on,

for example, perennial ryegrass and to normal (not ‘sandy only’) greens construction.

Space must be devoted briefly to contentions that trace elements play an important role in fine turf management. Whether this is true or not, it is certain that supplies of such micronutrients do not need to be supplied in fertilizer form.

It is very debatable whether any golf greens have ever shown any manurial deficiency of macro, let alone micronutrients, as most micronutrients are supplied in conventional fine turf fertilizers, such as dried blood and hoof and horn, and/or top dressing, though they certainly have been starved of air and light and, less commonly, of water (though by far the biggest problem with irrigation was in excessive applications).

It could be claimed that fine turf owes its existence to toxic chemicals! In 1980, H.W. Woolhouse wrote: ‘It may seem a trifle odd to suggest that some of the finest scenery in Western Europe owes its existence to metal toxicity, but it is a fact that much of our heath and moorland exists on soils where the concentration of pure aluminium would be toxic to crop plants.’

Most of our best golf courses were laid out on land so basically infertile that it could not be used agriculturally and, yet, many farmers and agricultural advisers have spent all their energies trying to destroy such ‘infertile’ conditions – and where they have succeeded, they have also destroyed those very grasses that make our best courses. It is no accident that annual meadow-grass is greenkeeping’s worst enemy and the most difficult weedgrass to control.

There is a vast library of statements by noted scientists, agronomists and enthusiastic observers all this century, including such names as Professor Sir George Stapledon of pre-war Aberystwyth grassland research fame, who have contended that good agricultural grassland husbandry and sound greenkeeping are diametrically opposed in aims and, therefore, methods.

‘Ask a farmer – or agricultural adviser – what to do and then go and do exactly the opposite’ is a saying that goes back to the 1920s. In fact, greenkeeping has

*Continued overleaf...*

## FERTILIZERS ON FINE TURF - CONTINUED...

been bedevilled by the influence of farmers and advisers who, stimulated by the need for increased production during two world wars, found out how to increase grass (and crop) yields by liming and the use of NPK fertilisers and promptly, and wrongly, applied the same principles to greenkeeping, automatically destroying the very grasses that made good turf for golf.

Always remember we are not looking for a crop of silage or hay,

but a fine textured sward giving tight lies. It was the inability of most greenkeepers to control agricultural influences by imposing their own knowledge and skills on well-meaning amateurs and vested trade interest pointed firmly in the wrong direction that caused the cyclic disasters and recoveries that have bedevilled greenkeeping all this century.

Today, better education and the rise of a highly professional body of men at the top of the

greenkeeping profession, backed by the crowd of skilled and trained young men thrusting up from below, gives us hope that, at last, greenkeeping will be controlled by those who know their grasses and their management.

Too many trade-inspired greenkeeping articles are based on totally wrong deductions, inaccurate observations and confusion with agricultural high-level grassland production methods.

No-one denies the need for nitrogen and especially slow-release nitrogen. The only debate is on how little is needed in golf greenkeeping. Remember, perennial ryegrass has no place on any golf course, so we are not concerned in golf with the different demands of this 'agricultural' species.

Too many claims are made that fine turf suffers from manurial deficiencies - when, in reality, these deficiencies are of air! Traffic and resultant compaction and wear are the most serious current greenkeeping problems.

### Botany

Claims are made by some fertilizer manufacturers that phosphate and potash *must* be applied, using elementary primary school botany to 'prove' that, without phosphate and potash, plants are stunted or will die. Yet the low levels needed by fine turf (millions of acres growing naturally in temperate zones, including our own links lands, moorlands, downland and heathland, which have *never* received any manurial applications) can be more than adequately supplied from the levels in the soil, even where such levels may be depleted by removal of cuttings or as liveweight increase in grazing animals.

No-one advises or uses (or should use) NPK autumn fertilizers, even if low in nitrogen, on any golf course - they merely increase disease and annual meadow-grass. Their use is condemned by all right-minded advisers.

Sadly, the whole problem is affected by the influence of other factors, notably the desire to present courses in lush technicolour for televised tournaments and the inability of too many golfers to evaluate good playing conditions when they are presented to them.

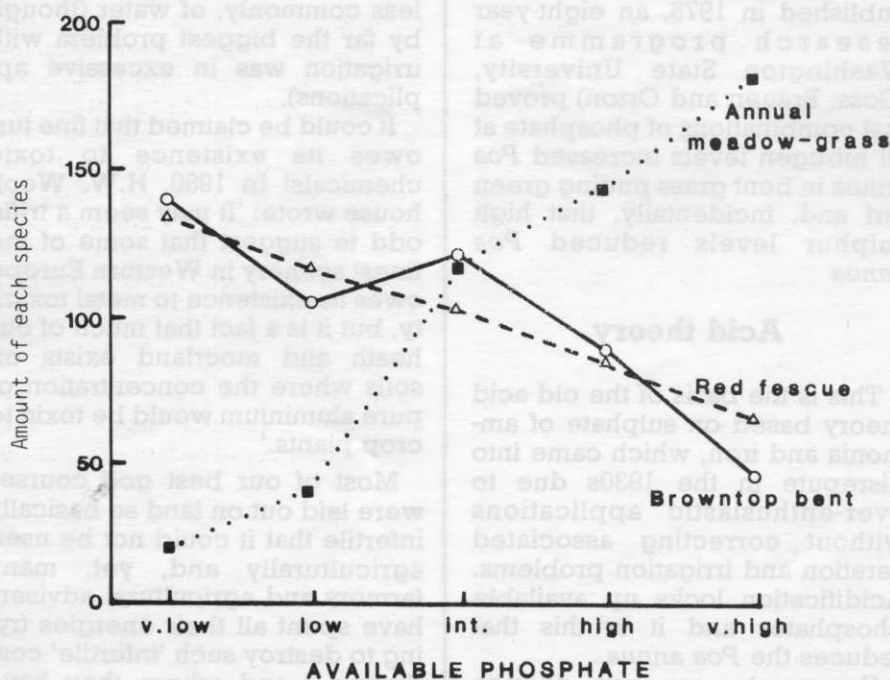


Figure 1

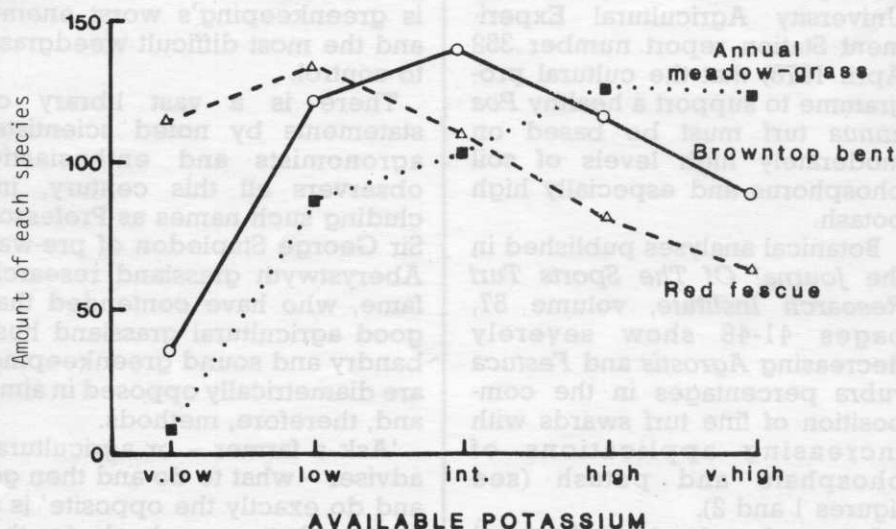


Figure 2

Ref. Kamp (1981)

Too many equate colour with quality.

One is reminded of the true story from this very adverse spring of a lady member of a Scottish links club who complained about the bleached colour of the greens to the head greenkeeper. "Madam, if you'd spent all winter lying out in the open as my greens have, you'd be a bit bleached, too," came the reply!

Of course, there are many other factors causing *Poa annua* dominance than the use of P and K fertilizers, but two wrongs do not make a right. Obviously, deep, regular aeration, sensible routine top dressing (in the growing season only) and controlled irrigation are essential aids to fine turf management.

Sarcastic statements in a recent article by the director general of the Fertilizer Manufacturers' Association that, 'as far as is commonly known, no phosphate fertilizer contains seeds of *Poa annua*' are wasted on the ears of skilled greenkeepers who have controlled *Poa annua* within the meaning of the act on their greens and have greens as good in early spring, as well as winter, as in the peak growing periods (the only time when *Poa annua* gives good putting surfaces) – and often in very marked contrast to adjoining courses, with *Poa annua* dominated greens in appalling condition.

We will only get better golf greens and better greenkeeping universally in this country when all concerned accept that the needs of fine turf grasses are diametrically opposed to those of productive agricultural species. As one eminent botanist said, "it amazes me that fertilizer manufacturers think they know better than the fine grasses what those species need, when these grasses have taken a million years to adapt themselves to very low soil fertility conditions."

One can understand only too well that the trade is having a difficult time and that competition is fierce, but the crisis will not be resolved by selling more fertilizers to golf courses. Diversification is one solution. No business can thrive on false standards and erroneous investigations. Estimates of the number of golf courses are widely exaggerated. Few of those in good order or sensibly managed use more than £250 per annum of fer-

tilizers (nitrogen only) as such. Many will use less. It simply does not represent a market that will solve the problems of fertilizer manufacturers facing a recession in agricultural consumption (some would say gross over-usage to create surplus production at the cost of the destruction of soil structure and the countryside). So much harm can be done so quickly for so little profit and, as some have already seen, at the risk of losing their reputation for knowledge, as well as integrity.

Correct manurial treatment of golf greens is no less important than correct mechanical treatment and correct irrigation practices and is still very significant. All the evidence supports what has been known by good greenkeepers all this century, that feeding should be restricted to nitrogen only – slow release certainly – and that phosphates and potash are needed in such small amounts that the needs of fine grasses are already over-supplied (often grossly so) in 99 per cent of all British golf greens and fairways.

It is fully admitted, however, that not all advisers have condemned the use of often hor-

rifically high levels of P and K in golf green mixtures in the past.

Research is necessarily a slow process, but work has been going on for some time to ascertain the optimum and lowest levels of basic manurial elements. Meanwhile, it would seem sensible not to try to reverse or decry those basic principles that, over the past two decades, have helped to correct what were very deleterious trends towards total dominance of *Poa annua*, with all its inherent faults and unacceptably poor winter performance.

More discussion is needed, but such discussion should be with specialists and organisations with a lifetime of experience in greenkeeping advisory work. Short-lived theorists or impractical academics should not sway sound greenkeeping practices, accepted by the majority of skilled and highly professional greenkeepers and course managers. Yet no attempt was made by any party to consult with those who really know the problems from all angles and nothing is to be gained by staging public meetings primarily designed to promote sales before private discussions have helped to clarify objections on technical grounds.

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## People, Places, Products



Alan Holmes.

Parkers has expanded and reorganised its sales and marketing team with the appointment of Alan Holmes as sales rep for London north east, Essex and part of Hertfordshire. He will be responsible for sales of all Parkers' products, including seeds, fertilisers and machinery.

The company has also appointed Mark Mills assistant to David Wall, sales rep for London south west and Surrey.

Parkers has established a permanent demonstration team under the management of Peter Brimmell, who was previously the rep for London south east. Paul Buxton has been appointed team demonstrator.

The team is available to golf clubs, sports clubs and local authorities and covers all aspects of the company's business - from sowing to mowing.

**Hampshire County Council has invested in 16 Ford 1210 compact tractors with four-wheel drive option to team up with a new reel mower from Huxleys. The council had two Ford 1210s in use and the idea was to power match the tractor to a mid-mounted reel mower to produce the ideal grasscutting unit, replacing the dedicated self-propelled mowers already in operation. Due to demand for a mid-mounted reel mower, Huxleys developed the TR84M hydraulically-powered model with a 7ft cutting width.**



The Iseki TX 2140, with trailer behind, going through its paces.

**An Iseki TX 2140 hitched to a 1.25 ton capacity tipping trailer was introduced to the industry at the Royal Show. The versatility of the Iseki tractor is shown with the added mid-mounted mower attachment. To complement the smaller range, Iseki has been previewing its SX tractors recently.**

*The Daily Telegraph Golf Course Guide To The British Isles* covers over 1,900 courses. Each entry details the type and length of course, how to get there, green fees, catering and hotel facilities, etc.

Donald Steel of the *Sunday Telegraph* and, indeed, the designer of a number of courses listed, describes some of the more notable courses with his tips and preferences.

Available from the Telegraph Bookshop, 130 Fleet Street, price £4.95, or by post from Telegraph Publications, 135 Fleet Street, London EC4P 4BL (post free).

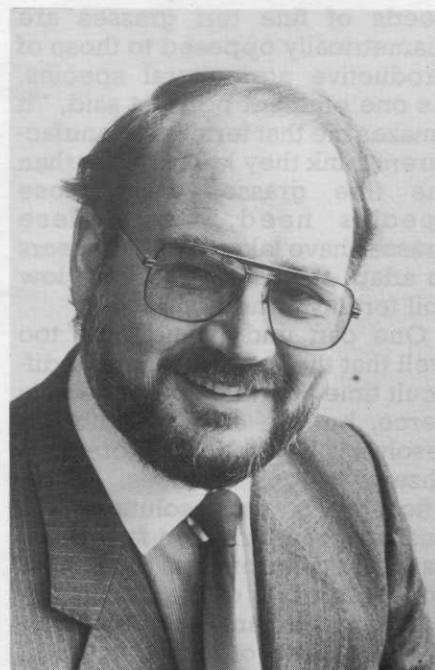
**This year, Kubota has attended Hirex, BGLA, SED, Muck '86, Pig Fair and National Drainage - all shows directed at specific markets.**

The interest in Kubota products, mini excavators, compact tractors, power products and engines has proved to the company that attendance at this type of show is worthwhile.

SISIS has made Ian Camp sales manager. Based at head office in Macclesfield, he will also be involved in the company's export markets.

Gordon Argo moves to the new position of product liaison manager and will be responsible for the testing of new machines and their transition from development to production.

Malcolm Gilbert has left SISIS in London and the southeast and customers should now contact T. Parker and Sons at Worcester Park (Tel: 01-337 7791), Dennis Lumley (0483 233086) or head office (0625 26363).



Ian Camp.



# RICHARD VEITCH

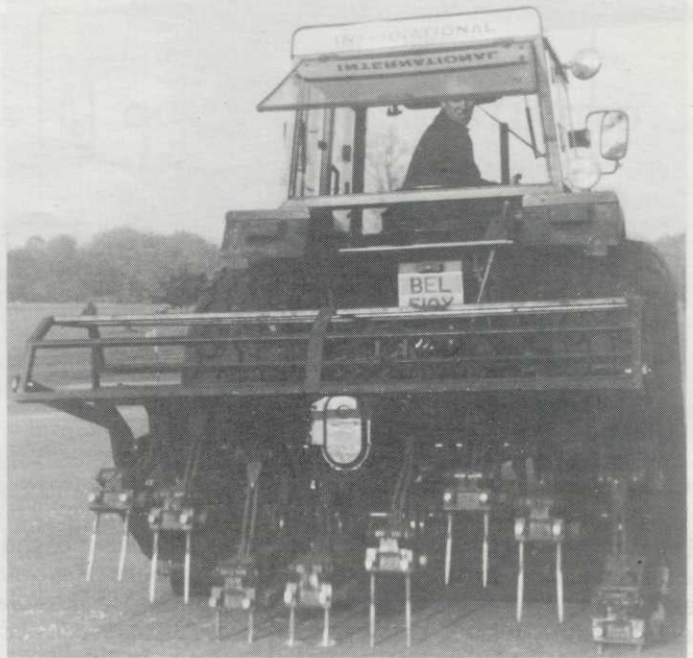
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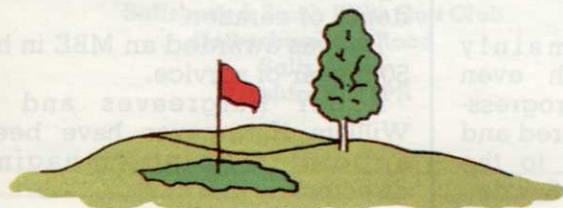
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Rolawn, the turf growers, has been harvesting orders for some prestigious locations recently. The company, which has over a thousand acres of purpose-grown turf throughout the country, has supplied turf to Wimbledon from its Yorkshire base, the Chelsea Flower Show from its unit in Bedfordshire, as well as the National Trust for Scotland and the new Cloister Gallery extension to the Tate Gallery in London.

Rolawn began in Elvington ten years ago and is now the largest turf-grower in Europe, selling over two million square yards a year. The company undertakes a continuous programme of research into soil, seed mixtures and turf maintenance. Managing director Ken Dawson is a commit-

Eric Staniforth, who has been managing director of SISIS since 1971 and 51 years with the company, retired recently. He has relinquished the managing directorship, but remains a director and will act as deputy chairman in support of D. B. Hargreaves, the chairman.

Eric began as an apprentice to the founder William Hargreaves in 1935, only three years after the formation of the company, known then as W. Hargreaves & Co.

His career progressed through the production side of the business which, at the time, involved the manufacture of tennis and netball posts before Mr Hargreaves began the development of turf management tools and machines following a visit to the Board of Greenkeeping Research at Bingley.

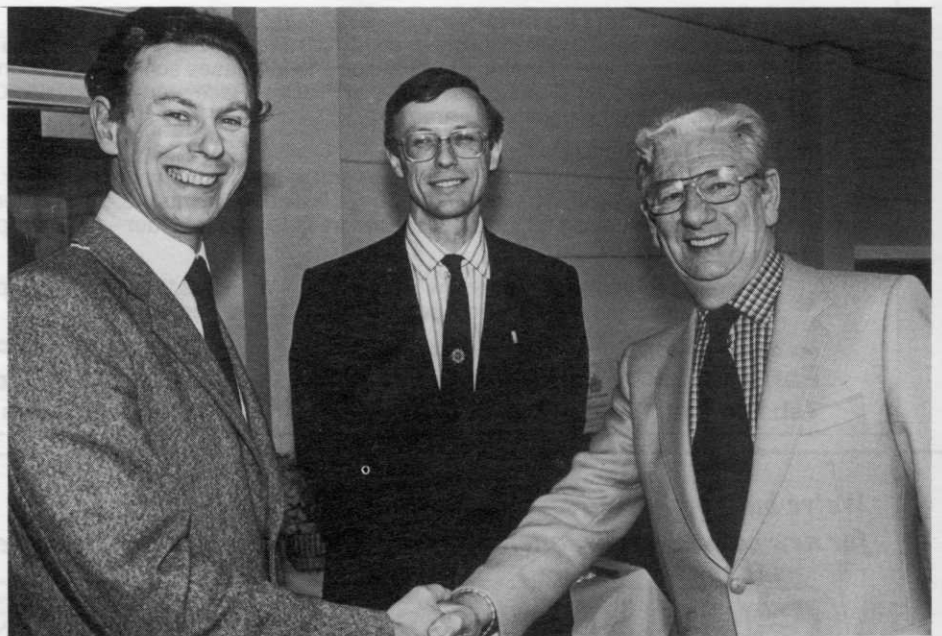
tee chairman of the American Sod Producers' Association.

At the Stoke Garden Festival, the British Association of Landscape Industries chose Rolawn for its feature garden. It can also be seen on TV for, as well as appearing anonymously in commercials for cat food and fertilisers, it was used on BBC 2's *Gardeners' World* recently, on Central's *Gardening Time* and for Granada's much-publicised croquet lawn.

RiteFeed recently unveiled a new range of products based on the proven RiteFeed liquid organic fertiliser. John Walker, director of RiteFeed, said: "Following discussions with many of those responsible for the development and maintenance of top-quality sports turf, it became apparent that there was a need for a fertiliser that combined the advantages of liquid organic feeds with the proven benefits of NPK fertilisers."

The RiteFeed range now comprises: RiteFeed liquid farmyard manure that conditions and improves soil structure while feeding the turf; RiteFeed with iron; RiteFeed with iron and magnesium for use on sandy soils; RiteFeed autumn and winter conditioner with iron (NPK 3/1/6); Aquarite with iron for use on heavy clay soils; Rite Moss Killer with three per cent nitrogen and 17 per cent FeSO<sub>4</sub>; RiteFeed Foliar (NPK 8/0/6); RiteFeed Fairway (NPK 5/0/3); RiteFeed Extra 'N' (NPK 15/0/0 plus iron) and RiteFeed spring and summer conditioner (NPK 10/2/4).

For further information, contact John Walker on 0524 791615.



Roger and William Hargreaves are pictured with Eric Staniforth (right).

Eric moved to the drawing office, where he began his successful design career.

Machines were mainly pedestrian at first, with even horse-drawn spikers, progressing through engine-powered and tractor-operated designs to the present-day Hydromain System,

which utilises the machine and operator weight to maximise depth of aeration.

He was awarded an MBE in his 50th year of service.

Roger Hargreaves and J. William Hargreaves have been appointed joint managing directors.

**BURY ST. EDMUNDS**

**GOLF CLUB  
HEAD**

**GREENKEEPER**

After 28 years at the Club our Head Greenkeeper will be retiring in August 1987. We are looking for a suitably qualified first assistant to run in tandem with him for a period of up to 12 months, gradually assuming full responsibility for all aspects of the management of the course.

Accommodation available.

Salary for discussion.

*Written applications to:*

**The Secretary,  
Bury St. Edmunds Golf Club,  
Tut Hill,  
Fornham All Saints,  
Bury St. Edmunds,  
Suffolk. IP28 6LG**

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Applicants should have had experience in contracting or greenkeeping at site management level, and/or be qualified with specialist degree or national diploma.

An attractive salary package, together with company transport will be provided.

*Those wishing to apply should send personal details in confidence to:*

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**SALISBURY & SOUTH WILTS  
GOLF CLUB**

require

**HEAD  
GREENKEEPER**

Applications are invited from suitably qualified persons with experience in all aspects of golf course management including the operation and maintenance of modern machinery, and with proven ability in the management of staff.

There are two courses, and 18 and a 9 hole and a major programme of improvements is planned for completion during our Centenary Year in 1988.

Salary by negotiation. Housing assistance possible.

*Written applications stating age, qualifications and experience to:*

**The Secretary  
Salisbury & South Wilts Golf Club  
Netherhampton Road  
Salisbury  
Wiltshire SP2 8PR**

**MORECAMBE GOLF CLUB LTD.**

(18 Hole Course)

invite applications for the post of

**HEAD  
GREENKEEPER**

From persons of proven ability with suitable qualifications and experience in all aspects of course maintenance, who have a thorough knowledge of machinery maintenance and also the ability to direct and motivate staff.

Salary negotiable — no accommodation.

*Applicants should apply in writing with full C.V. to:-*

**The Secretary  
Morecambe Golf Club Ltd.,  
Bare, Morecambe,  
Lancashire. LA4 6AJ**



# SELSDON PARK HOTEL

## GOLF COURSE SUPERINTENDENT

Selsdon Park Hotel requires an experienced and knowledgeable person to carry the overall responsibility of developing and maintaining the adjoining 200 acre Championship Golf Course. The successful applicant will be aged between 30-45 years and hold formal qualifications together with a proven track record of golf course greenkeeping including the maintenance of traditional and sand-based greens.

Responsibilities will include both supervising and working alongside our existing team of greenkeepers, also the controlling of specialist sub-contractors who are regularly employed.

Salary is negotiable according to experience. After two years service fringe benefits would include non-contributory pension scheme, sickness benefit, BUPA and life assurance. Married accommodation can be provided in a lodge within the grounds.

Applicants should be available to take up this challenging appointment on 1st September, 1986.

Please apply in writing together with a C.V. and recent photograph to:

**Mr. J. D. Aust, FHCIMA.**  
Managing Director,  
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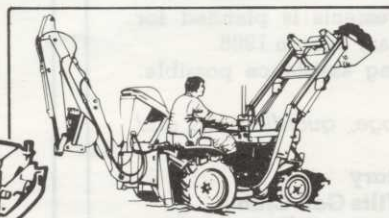
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## COURSE MANAGER

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The applicant will have the essential skills and experience to fill this important position and he will, of necessity, be in membership of a recognised Greenkeepers Association.

Salary commensurate with experience. No accommodation.

*Please reply in writing, giving full details and experience to date, to:*

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Dyrham Park Country Club  
Galley Lane, Barnet  
Herts.

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*Apply in writing to:*

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Tel: 0247 465953

**Peter Harradine**,  
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United Arab Emirates.  
Tel: 00971 6 356446

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**Cameron Sinclair - Cotton, Pennink, Steel & Partners**  
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**Pier Mancinelli**,  
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**Jan Sederholm**, S 252 34 Helsingborg,  
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**Overseas (Provisional)**  
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Dennewmoos 5a, 8990 Lindau-Bad,  
Schachen, Germany  
Tel: 08382 230 05

**R. Berthet**,  
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Paris, France  
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**Eccles Contracting Ltd.**,  
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**Golf Landscapes Ltd.**,  
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Tel: 0277 73720

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Bucks. MK19 7BX  
Tel: 0908 510414

**Brian D. Pierson (Contractors) Ltd.**,  
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Tel: 0202 822372

**Southern Golf & Landscapes Ltd.**,  
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Tel: (0272) 823691  
Contact: Michael Warne  
Camp Road, Swinderby, Lincoln  
Tel: (0522) 86714  
Contact: Philip Adams

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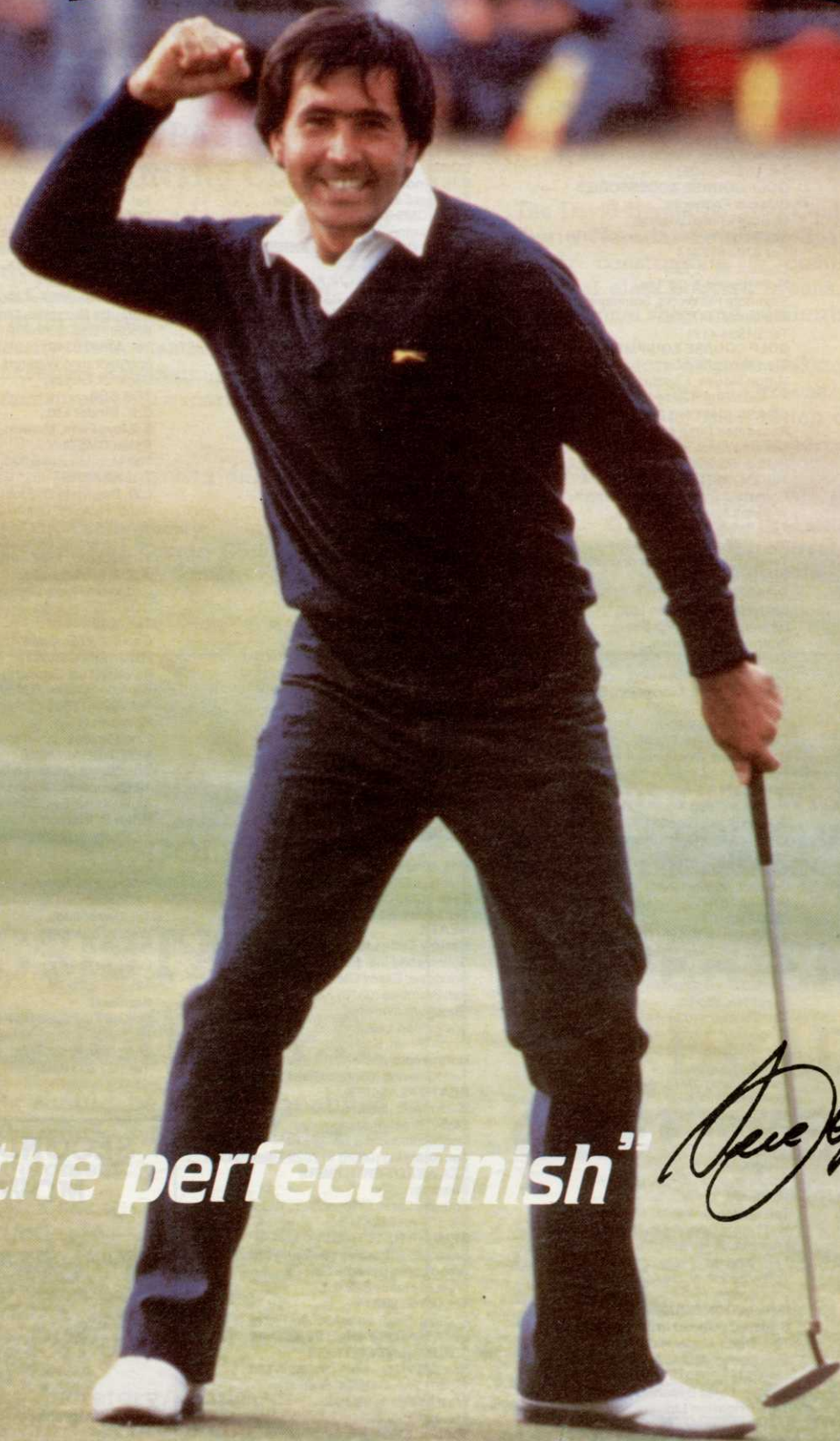
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