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Front Cover: Positive steps to radically improve the general status of greenkeepers were taken in Brighton last month with the staging of EIGGA's first Convention and AGM. The board of management, trustees, general administrator and president are pictured on the steps of Brighton Poly.

From left to right (back): Peter Wisbey, David MacIndoe, Alex Armitage, Clive Dryden and Kevin Munt. (Front): Hugh McGillivray, David Jones, Danielle Jones, Jack McMillan and Michael Coffey.

EIGGA IN BRIGHTON

IN MY OPINION
Jonathan Harmer of Farmura gives his thoughts on the industry

OPEN FAIRWAY
Greenkeeper's ever-popular readers' letters section

OUT ON THE COURSE
John Campbell talks to Jack McMillan, newly elected EIGGA president

PLUS CA CHANGE
The more things change, the more they are the same, Jim Arthur says...

EIGGA's CHAMPION!
Billy McMillan comes out tops in the association's first national tournament

NOTEBOOK
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EIGGA elects officers at AGM

After the highly successful Greenkeeper sponsored educational conference at Brighton, EIGGA held its first AGM on the Sunday afternoon (April 17). As the board of management was only provisionally elected, the AGM's prime function on this occasion was the election of EIGGA officers. However, the first item was a state of the association summary given most ably by general administrator Danielle Jones. This revealed that membership was still increasing steadily and that financially the association was on a sound footing, with over £3,000 of cash and stocks. A full member's subscription for next year of £15 was agreed.

The first office to be filled was that of president. The provisional board of management had unanimously recommended Jack McMillan and members present were equally united in voting in this popular appointment. Jack was then presented with his presidential blazer and made his acceptance speech. Dennis Aylings from Sussex was elected a vice-president and David Jones, Michael Coffey and Hugh MacGillivray elected the association's trustees. The provisional board of management was unanimously elected into office and, at a subsequent meeting, they elected Kevin Munt — who had chaired the meeting most effectively — chairman.

More Conference/AGM news and pictures on pages 4 and 18...
by the president’s wife Mrs Rita McMillan. The winners were:—

1st Prize — £1200 Holiday
Peter Martin, 1 Rackham Close, Southgate, West Crawley, Sussex.

2nd Prizes — Custom Fitted Golf Clubs
A Cheeseman, 242 Cowley Drive, Woodingdean, Brighton, Sussex.
S. Harris, Ifield Golf Club, Crawley, Sussex.

3rd Prizes — Car Stereo Cassette Radios
R. Cosstick, 4 Bramber Road, Seaford, Sussex.
R. E. Moore, 59 Hackenden Close, East Grinstead, Sussex.
D. Meer, 27 Walton Gardens, Wembley.

4th Prizes — Tournament Golf Bags
Mrs Johnson, 15 School Lane, Newington, Kent.
P. Smallwood, 3 Burnham Close, Knaphill, Woking, Surrey.
F. R. Nicholls, Frinton Golf Club.
J. Gittins, 6 Fairlea, Highfield Lane, Maidenhead, Berks.

5th Prizes — Magnums of Champagne
D. Brown, Seaford Golf Club.
T. Manning, 106 Windsor Road, Newmarket, Suffolk.
D. Valentine, Golf Bungalow, Rectory Road, Streatley, Reading, Berks.
Townsend, Cambridge Parade, Enfield.
P. M. Pearson, 16 Home Close Road, Houghton-on-the-Hill, Leicestershire.

Scene at Brighton

Left: Mr and Mrs Jack McMillan after the raffle draw.
Above: A lively brains trust session had Jack McMillan, Kevin Muni, Hugh McGillivray and Bert Watson in the hot seats.
Right: Wing Commander Bill McCrea, secretary of Walton Heath, gave an interesting lecture. (David Jones of EIGGA is also pictured.)

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IN MY OPINION

JONATHAN HARMER

Jonathan Harmer is sales director of Farmura.

EXTREMES of opinion seldom last long or bear the test of time. A fact that has been demonstrated over a wide range of human activity as well as turf culture. With regard to the latter, for too long, too many people have been persuaded that all that is required for healthy plant growth is a supply to the soil of nitrogen, phosphorous and potash, but truth is many sided and while these elements are essential, every aspect must be studied to arrive at a sensible conclusion.

Truth can be many sided

Surely, nowhere is this better demonstrated than in our treatment of plant life and the soil? For too long the idea has been that the soil is a catalyst for converting NPK into nutrients capable of satisfying the essential needs of the plant. While important, they are not the only requirements. First, they have to be available to the plant roots in a form that is capable of absorption by the roots after the soil has accepted, held and transformed them into a form that the roots can absorb.

Beneath our feet we have a world that consists of matter and organisms so small and so numerous that they are almost beyond human comprehension. It is a scientific fact that the soil is composed of grains of soil ranging upwards from 1/2000 of an inch in diameter and that each of these grains in a healthy soil is covered with a film of water and organic matter in which the teeming soil life has its existence.

It has been calculated that in one gramme of soil, the organisms, fungi, moulds, yeasts, protozoa, algae and other minute organisms may number as many as three or four billion. These all serve the needs of the soil and of the plant growing in the soil. Their activity influences the extent to which the soil retains its structure, fertility and ability to convert soil nutrients into forms that the plant can absorb and also the extent to which the soil retains its moisture in dry periods.

It is certain that there is a lesson in all this for those of us who are concerned with turf culture. It is difficult to force grass upwards, sideways and downwards at the same time and excessive dressings of fertiliser tend to stimulate the upward growth of the grass at the expense of tillering and roots. Tillering is, of course, essential if we are to develop a thick sward.

It seems extraordinary that with the developments in most fields that soil science is little understood or discussed beyond basic soil sampling, outside of research laboratories the names and their work largely unfamiliar to a wider audience.

With a better understanding, there would not need to be the argument as to whether the organic or chemical approach is correct, but rather what is the right combination in a given situation. The turf management business is not about growing grass but managing turf — a very different objective. What is required is a healthy soil, a strong rooting plant and a thick sward of the mixture originally sown. Once this is achieved, growth and colour can be added according to the situation.

We need to get away from the idea of a flush of growth followed by mowing, fertilising again, more mowing and the possibility of thatch. The aim should be a system which, while less spectacular, leaves the greenkeeper in control of the course rather than vice versa.

A welcome trend is better cooperation between the various sections of the industry regardless of their speciality; working to see how their product or service fits into the overall scheme of course maintenance. This can only be to the good and help greenkeepers produce better courses.

With Farmura, I see ourselves very much part of an overall programme and not in isolation from all the other activities.

Far less healthy is the current level of discounting in the trade. Special offers often represent a welcome initiative at times, but price cutting should not be carried to extremes. In the short term, of course, the customer benefits, but there is always next year and the year after that. Both manufacturers and distributors need a fair margin if they are to provide product and service of the level demanded.

Price cutting should not be carried to extremes

Costs have risen to astronomical levels and if in addition advice is to be given and stocks held, a sensible margin is necessary. Put another way, what would happen to golf clubs if a price war was entered into to attract members? Standards both on the course and in the clubhouse would have to suffer. Exactly the same could happen in the trade to the detriment of clubs and their members. Let's hope that common sense prevails!
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Quantity Or Quality?

It's strange that a greenkeeper today should receive praise for the quantity rather than quality of his work in any eight-hour day. But who is to blame? It is the way new machines are advertised — with slogans like 'Cut 18 greens in two hours'? Although very true with the introduction of the Triplex, the sheer weight of the machine diminishes the quality of the putting surface through compaction, thus allowing the meadow grass to take hold. So posing the question, quantity or quality?

I feel the majority of the blame lies with the clubs and committees, with their ever-increasing need to make them into a viable going concern whatever the cost. Sadly, the cost is the course. The pressure on the head greenkeeper to open the course after heavy rain or snow during the winter months must be immense and his authority surely undermined if he considers the course to be unfit for play. His opinions are invariably rebuffed by a committee of elected club members whose limited knowledge of turf culture is from their own humble back gardens.

The reduction of competitions and general play during the minter to help the course recover from the pounding of competition would seem to be their policy. Inevitably, the quantity of play reduces the quality of the course.

The summer sees the cycle start again with assistant greenkeepers encouraged to rush from one job to another, as greenkeepers try to save time or dodge the flow of golfers or being reprimanded for not being quick enough.

The pressure put on the head greenkeeper by his club to get the course mowed and prepared quickly is passed to the greenkeepers, who is doubt, reduce the quality of their work. In conclusion, a club committee should give total control of the course to its head greenkeeper, as he is the person best qualified to do it.

Finally, clubs should be made to realise that just because the course looks good it is not necessarily at its very best and any self-respecting greenkeeper wants his course to be the best.

Ian Delagua, Greenkeeper, South Beds Golf Club.

A Warm Welcome...

As my young friend and colleague, David MacIndoe, head greenkeeper of West Herts Golf Club, drove along the beautiful seafront to Brighton Polytechnic College, venue of the first annual conference and AGM for the new English and International Golf Greenkeepers' Association, the sun was brilliant and inviting. So, too, were the welcoming handshakes between some old friends and many new young friendly greenkeepers, most of whom were smartly turned out in blue blazers and grey flannel trousers decorated with the brilliantly-designed EIGGA badge and tie to complete the image of the new EIGGA member, which is perhaps their first objective in creating a new special breed of greenkeepers.

Our first of many drinks was provided by Greenkeeper when managing director Michael Coffey introduced his staff and members of the EIGGA board of management and trustees. The atmosphere was informal and very friendly and while they were under the eagle eye of many of us older mature greenkeepers, I instantly got a feeling of confidence that my stay would be educational and enjoyable, as it later turned out to be, and very worthwhile.

The change of fresh sea air stimulated an appetite that I had forgotten since my days at Nain Championship Course and I heartily enjoyed my lunch, much above my expectations in relation to what I had anticipated my conference fee would afford. During my stay, I enjoyed three square meals a day with morning coffee, afternoon tea and biscuits, somewhat to the detriment of my already overweight figure and, as it proved later, equally to the detriment of my deteriorating golf swing.

After lunch, we embarked on what turned out to be a very comprehensive conference. The topics mostly related to the objectives of EIGGA in their search for better education for future young greenkeepers, incorporating refresher courses for all 'has-beens', life insurance schemes, private patients' schemes at 20% discount rates and so on. Of course, the main objective is to belong to an association which is organised and dedicated to the cause of uplifting the status of the greenkeeper generally for those who have the initiative and foresight to take full advantage of the objectives of EIGGA.

All the speakers were men of integrity and well qualified in their individual topics. To give credit to them all is not within my scope, other than to say that question time after each speaker was, in my opinion, intelligent and, in one case, conflicting which is almost inevitable in such controversial and mystic topics related to golf greenkeeping. No doubt, Greenkeeper will publish something on behalf of the speakers and while I am reluctant to single one out, I cannot resist the temptation to air my views on the 'Greenkeeper father figure' Jim Arthur. Some describe him as controversial — well, yes, but only in his effort to correct those who know less. He is certainly not guilty of dogmatism and certainly not hypocritical. He is no cowboy and never a liar, but woe betide those who dare to contradict the golf greenkeeping bible, which he knows to the every letter.

It is very unfortunate that some who are not so well versed on the subject frequently misinterpret his recommendations and it is perhaps true to say that only those who know how and when to apply his recommendations reap the real benefit of his agronomical expertise.

I remarked in the bar that, over a good few years now, I have been dominated by Arthurism and Thatchism. Most found this hilarious, but some frowned while trying to grasp my meaning. However, I never delve into politics, but the subject of Continued on page 16...
With the arrival of early summer, Greenkeeper has got back out on the course. John Campbell visited Jack McMillan (illustrated below), who cares for the 36 holes at Sunningdale.

A VISIT to Sunningdale is always an enjoyable experience, whether it be to play golf or simply to savour the majestic splendour of the setting among the heather and pines and view the immaculate condition of its two renowned courses. The man with the onerous task of caring for this natural piece of golfing country is course manager Jack McMillan, who was recently elected the first president of the English and International Golf Greenkeepers’ Association (EIGGA).

Jack has been at Sunningdale for two years and may be seen most days striding across his domain with the military precision instilled in him by his service in the Scots Guards as a sergeant physical training instructor, when he also distinguished himself as a boxer.

Those who know him well would describe him as a canny Scot, unflappable and a philosophical character with both feet planted firmly on the ground. He is an avid countryman and left school to go straight in to greenkeeping.

For 28 years, Jack has shared all his trials and tribulations in greenkeeping with his bonny, understanding wife Rita, who is a first-class cook and in whose capable hands the destiny of the McMillan family has been directed with maternal shrewdness, kindness and compassion. Their house is an open door to a whole host of friends in the greenkeeping world and few days go past without former members of Jack’s staff at other clubs calling in to enjoy the couple’s hospitality.

The McMillans have a family of six. Daughter Heather took up nursing as a career and the five sons have all followed in father’s footsteps, which must be something of a record! Stewart is head greenkeeper at Bush Hill Park; Bobby is head greenkeeper at Upton; Billy is head greenkeeper at Badgemoore Park; Ian is head greenkeeper at Datchet and the youngest, Cameron, works for Jack at Sunningdale.

McMillan senior started in greenkeeping on the moorland course of East Renfrewshire, under Tom Dobson who was pro/greenkeeper, to whom he confesses that he owes a great deal for his early experience and shrewd guidance in all aspects of golf-course management. From there, Jack moved to Elderslie and then on to Cardross, where he remained for ten years. It was during this period that he reconstructed nine of the greens to improve the layout of this course in the west of Scotland.

In 1974, he decided to broaden his experience by moving south to Bush Hill Park. From there, he went to Effingham and finally to Sunningdale, where he has settled in comfortably and has rapidly established himself as a highly capable course manager.

Jack considers himself privileged to be at Sunningdale. He likes the friendliness and interest of club officials and members and, together with his greenkeeping staff, he aspires to...
Jack McMillan with his second in command Neville Roe.

Jack expects his staff to be his eyes and ears on the course and to keep him closely informed on all aspects of their work, so that he is kept up to date with daily routine and any problems to be reported to him immediately, enabling prompt remedial action to be put in hand.

He has no particular preferences between triplex and single unit greens mowers and feels that they can each do a good job provided they are properly set and maintained at regular intervals. At Sunningdale, they have both types of mowers, which are used daily to produce an excellent finish to the greens. However, for tournament play they prefer to cut with the single unit machines and this generally has the approval of the pros.

Jack has always believed there must be less apathy and more unity among those in the greenkeeping profession if they are to achieve higher status and rewards. He is convinced that the steps taken to establish EIGGA should have the support of all greenkeepers, as the association will encourage many more to look to the future with hope. It is also his ambition that all greenkeepers will join together to present a strong body under the leadership of a full-time administrator along the lines of the American and Canadian associations.

To make the profession more attractive to youngsters, Jack says that it must be seen as a worthwhile career and this can only be done with a good educational and training programme under competent and experienced teachers in golf-course management on the pattern of Scotec and City and Guilds organised by SIGGA.

He believes that anyone who has had good training and the right kind
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"The more things change, the more they are the same" — as the French would have it. Never is this more true than in greenkeeping, where we are continuously assailed by new ideas, which turn out to be what was standard practice 50 years ago.

I was intrigued to see in an old copy of Golf Illustrated (23.8.35) a letter from Major Reeves, the then secretary of Rye Golf Club, congratulating Mr W. Hargreaves on the success of his new Sisis spiking machine, which he claimed was designed in response to his plea for someone to invent a suitable machine to replace hand forking.

He continued: 'when I wrote I had in the back of my mind a machine which would penetrate to a depth of 6" or, better still, 8", because we have for many years been in the habit of hand forking in the autumn to this depth and I well know the benefit derived...'.

We found that whereas the roots extended generally to 2", they had penetrated down the holes made by the fork to a depth of 6". On this account I hope that you will, before long, produce still another machine, the tines of which will penetrate to this depth — 6"!

It took Sisis a few years to do it and even longer to get clubs to accept the cost of more expensive and powerful machines, but Rye today aerates the course — greens, approaches and tees — with a Hydromain, capable of this desired 8" penetration.

In the intervening years, we have seen, gradually at first and then rapidly, increasing emphasis on the need for aeration to combat compaction. As with everything, so in aeration, we are constantly seeing old ideas revived in the guise of new inventions. I note a resurgence of interest in hollow-tining and, indeed, it has its uses occasionally, especially in introducing materials into the root zone, if the holes are big enough. One such ameliorant is Turface, of which more anon.

Hollow-tining is extolled as it reduces compaction — yes, but by how much? It is rare to remove more than 50 per cent of the soil — common for only 25 per cent of the volume to be extracted.

Defence of close-spaced holes, on the grounds that this removes a higher percentage of the surface, fails entirely to appreciate that the most important factor in aeration is depth and consequently the volume of soil removed is a more significant yardstick. In any case, a machine capable of a 2 x 2 x 2 pattern can do only that, but one giving 4 x 4 x 4 can also produce 2 x 2 x 4 by running it over the green twice.

As with everything, in aeration, we are constantly seeing old ideas revived in the guise of new inventions. As with everything, so in aeration, we are constantly seeing old ideas revived in the guise of new inventions. As with everything, so in aeration, we are constantly seeing old ideas revived in the guise of new inventions.

The problem, however, is that there is a limit on how many times you can hollow-tine without destroying the surface 'structure' of the green.

If deep slitting is carried out weekly or fortnightly, according to need — and avoiding, of course, a cold, dry spell in early spring when slits may open, but when it is most unwise to start watering (cold, wet greens are much slower to start growth once soils start to warm up) — then hollow-tining as a routine measure is probably unnecessary. We were always reluctant to hollow-tine fine fescue greens 30 years ago on the grounds that it opened the way for annual meadow grass invasion.

The whole principle of slitting frequently is to minimise disturbance

Also disturbance to the surface to any great extent is not tolerable. The whole principle of slitting frequently is to minimise disturbance, and not play into the hands of those who want no aeration at all and ask "can't you leave the greens alone for five minutes?"

Slitting, it has been suggested, cannot improve drainage and should not be carried out when the soil is wet as it compacts the soil. This I believe to be an impractical viewpoint for whenever is soil not wet? We have moist conditions from September until May and then in drought we irrigate.

Let us consider the compaction angle. A circle is the least peripheral distance to enclose the greatest area. A cylinder must, therefore, represent the greatest volume for the least surface area and consequently compaction at the sides is at a maximum.

All are, or should be, agreed that solid-tining is the worst form of aeration. Hollow-tining is extolled as it reduces compaction — yes, but by how much? It is rare to remove more than 50 per cent of the soil — common for only 25 per cent of the volume to be extracted.

Compaction, especially with stout, hollow-tining, is useful only to aid wear without breakage, is very considerable and hollow-tining is useful only to aid introduction of soil ameliorants. See how quickly the holes fill in afterwards. It can also drive material into the base of the holes and so may impede deep root development.

But a slit is the least volume for the maximum edge effect and the action of most slitting aerators cultivates the soil below the surface. Frequencies of even fortnightly intervals, let alone weekly, effectively cultivate and there can be in practice no area of soil left undisturbed. Furthermore, with slit tines little more than $\frac{1}{8}$" thick or $\frac{1}{4}$" at most, what compaction can there be at the sides of the slits, especially in comparison with stout hollow tines?

In practice, of course, slitting works and, in any case, any standard remedial measures will not be tolerated for long if they result in the continuous disturbance of putting surfaces. Slitting, save on bad annual meadow grass
greens in the intermediate stage of conversion to bent greens, hardly shows. Most drainage problems are linked with thatch holding water like a sponge. Intensive slitting is the only effective way of eliminating thatch.

The message about the value and efficiency of deep aeration now seems generally recognised and frequent, deep slitting of greens and fairways is taken for granted. Properly done, there is virtually no disturbance to the surface.

However, there are still areas of Britain where the missionaries have failed to convert the heathens and it is significant that these areas coincide with a much higher proportion of courses with bogggy, thatched, soft, spongy greens, closed — as Bingley’s survey showed — for weeks on end due to flooding in winter.

One such club is, I understand, going to its members with proposals to lift and relay all eighteen greens — in my view, a totally unnecessary waste of money. Not surprisingly, I am informed, they aerate their greens twice a year!

I am also concerned by the number of terms which are constantly misused or misunderstood, for I believe now most are used without knowing the precise definition. I have therefore decided, with the assistance of Greenkeeper, and others to produce and publish in the magazine a glossary of greenkeeping terms.

On another topic, we keep on being assailed on all sides by people who have invented sand. One of the things that I learned very early in my greenkeeping training from old head greenkeepers was the folly of applying heavy dressings of sand alone to firm up thatchy greens.

For the sake of a short period of relief, disaster follows in the wake of a complete root break, with roots travelling laterally along the band of sand instead of penetrating to the soil below.

In severe cases, large areas of greens could be rolled up like a Swiss roll when aerating them and I have seen, on too many occasions, white leaves growing on the low side of such ‘detached’ turf, with green ones on the surface and an inch of fibre between them.

Now sanding is back in vogue and, in a few years, so will root breaks be. It is the change of top dressing that causes the damage. Therefore, where sand alone has been used for years, as on sandy links, there are no changes and so no layering results. But unadulterated sand, even if it is of the correct physical characteristics with spherical, not angular, shaped particles, creates severe drought risks and the resultant compensatory overwatering may well create major thatch problems.

To return to such useful water-absorbing soil ameliorants as Turface, I have yet to find any sand with a fraction of the absorptive powers of Turface! I have found this material (extensively used in hydroponics in the States) to be invaluable in improving vertical drainage and improving root development, but it works only when introduced deep into hand hollow-tine fork holes and where there are permeable layers below the impeded thatchy surface. Complaints nearly always stem from poor results caused by conventionally top dressing on the surface — it has to go down the holes, no easy task on a wet surface.

Seaweed extracts are often dismissed as gimmicks despite their endorsement by many scores of skilled head greenkeepers. In various forms and different methods of application, they are invaluable in building up soil health and stimulating root development and helping thatch control by increasing soil micro-organisms. They have found a big market in intensive agriculture for the same reason. But a new idea? Certainly not! The basis of compost top dressings on links courses for the past century has been seaweed stacked with sand.

Perhaps one of the most revealing advertisements of recent years is that decaying fast, firm putting surfaces and claiming that the use of complete NPK granular fertilisers ‘produces the kind of greens greenkeepers want and down to earth club golfers enjoy’. How condescending! Even if it were true, why should less able golfers demand special conditions? It is akin to poorer cricketers demanding 10’ wide blades to their bats, or criticising the way wickets are prepared.

Down to earth golfers will inevitably end up as down to mud golfers in winter, even if they play on full greens at all and not on temporaries — if they are presented with thatchy annual meadow grass dominated putting surfaces in summer as the result of the use of phosphatic fertilisers, and especially of autumn fertilisers, for which there is absolutely no justification and which tend to induce disease.

Sadly, it seems, no notice has been taken of all the research over the past 60 years, since the link between phosphates and annual meadow grass invasion was known in the 1920s. The basis on which most golf greens are now fed is almost as old as greenkeeping — an equal part mix of ammonia, blood, hoof and horn and iron, produced by an increasing number of fertiliser firms — after an unhappy period of over-feeding with NPK and resultant annual meadow dominance and thatch.

Incidentally, in a most unfortunate misprint, leaching is incorrectly spelt. Leeching could be described as blood-sucking by a rather repulsive invertebrate. In fact, the losses by leaching are grossly exaggerated and virtually all our greens in Britain have enough phosphate and potash to last them for the next century let alone this one!!

I agree that all new ideas should be examined. Most will be found merely to echo older methods. Some are misguided, others more suited to different soils, climates and grasses and maybe I am set in my ways. But what we must avoid is the uncritical adoption of every ‘new discovery’, which can lead to expensive disasters and even more expensive remedial work. We should never decry the old methods merely because they are old — often they form the basis of new techniques.

In the end analysis, very little changes except emphasis. With more play, we need more corrective aeration and have less time to do it, so we need speedier machines. Too much ‘advice’ is still purveyed with the object of selling something — nothing wrong with that so long as it is recognised.

But surely there can be no justification for a fertiliser company selling to one small nine-hole club 13^ tonnes of granular fertiliser for their fairways, when the club had one hardworking greenkeeper who had to mow his erstwhile fine, wavy fairways three times a week, leaving little or no time for the greens — over-fed, concrete hard, pure annual meadow grass? All that any area of the course wanted was air, but there is not a great sale for air!

Sound advice saves more money than any other economy and happily there is now more unanimity of advice. Good advisers are like good course architects — they provide correct specifications and see they are implemented. Thus, there can be only good contractors or bankrupt contractors, which is why I maintain that good course condition, based as it indisputably is on teamwork, must be founded on correct advice, by fully qualified and experienced advisers, preferably graduates in a subject allied to agronomy.
Open Fairway — Continued

Golf greenkeeping is my pet subject and I am also totally dedicated to the profession, so much so that I hate to think that Jim is almost always right. He is nevertheless my friend and colleague and here at Sandy Lodge, he has a place in my unquestionable success and I am confident, as is my committee, that he has contributed to this success.

It was gratifying to see both J. H. Arthur and Dr Peter Hayes elected honorary members of EIGGA. No doubt others will follow, but first let them prove themselves worthy of this honour.

The AGM was swift and very decisive and a most worthy president was elected in my good friend Jack McMillan, course manager at Sunningdale Golf Club.

On the Monday, I had the good fortune to play 18 holes with Billy McMillan, who went on to win the trophy, seconded by my fellow Scot Dave MacIndoe.

Again, not wishing to make favourites among such a fine body of relatively young people, I will conclude by saying very well done Hugh McGillivray — words fail to credit you and your board of management and others concerned in your vision and, I believe, financial contribution in the inauguration of EIGGA. May you go from strength to strength.

Bill Thomson, Course Manager, Sandy Lodge Golf Club.

Right: Jack and Billy ‘shake on it’ at the EIGGA tournament prize presentation.

Below: An impressive display of crystal on the prize table inside the Worthing clubhouse.

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16 GREENKEEPER MAY 1983
Out On The Course — Continued...

of experience may want to qualify for a job overseas. There are often opportunities in Europe for ambitious men who are willing to take the step of uprooting themselves and learning another language. Greenkeepers in this country have always had a pioneering spirit.

He would remind the would-be experts that, at one time, greenkeepers used to prepare their courses by working towards a peak at the weekends when most golfers could only use the facilities. Nowadays, courses must be in tip-top condition seven days a week to satisfy all the demands made at a busy club, where daily visitors and societies are a necessity to bring in much needed revenue.

Jack says that much of what you learn about greenkeeping is by trial and error and the most valuable lesson he learned in his search for perfection was the misuse of water when striving to produce first-class turf conditions to please golfers. Many, he feels, are deceived by colour. The best grasses, such as agrostis and fescues, are pale green and sometimes turn yellow and they make the best surface for putting on. The value of the poverty loving grasses was impressed on him at an early stage of his career.

Jack maintains that every good greenkeeper should be able to play golf. If not, he should at least have a basic knowledge of the game as it would help him to appreciate the course conditions from a player's point of view. He is a useful golfer himself and was a member of the Scottish team that won the inaugural International Golf Greenkeepers' Tournament at Ipswich in 1973.

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A member of the Heron Corporation.
Mc and Mac finish one and two in inaugural EIGGA tournament

A day's golf for conference delegates followed the conclusion of association matters.

On the Monday, a 36-hole tournament was played at Worthing GC and EIGGA's thanks go to the club and Major Carroll for their courtesy and hospitality. Despite the very poor conditions, which the Hugh MacGillivray managed course coped with exceptionally well, Billy McMillan managed to show all others a clean pair of heels with some superb golf. The top prizes of cut glass were presented by George Parker of T. Parker & Son who, along with Ransomes and Nickerson Turfmaster, made generous donations to the prize fund. Mr Parker wished EIGGA well and promised that his company's sponsorship of the event would continue. He was thanked on EIGGA's behalf by Danielle Jones, who then called upon the president to present the remaining prizes. The winners were: 1st overall — B. McMillan, 36 pts + 27 pts; 2nd overall — D. MacIndoe, 28 pts + 26 pts; 3rd overall — K. MacNiven, 29 pts + 24 pts; A.M. — Dennis Ayling, 30 pts; P.M. — Lionel Harris, 28 pts; Trade Prize — Michael Coffey, 30 pts + 24 pts.

Finally, president Jack McMillan presented a bouquet of flowers to general administrator Danielle Jones.
# EIGGA

## APPLICATION FOR MEMBERSHIP OF E.I.G.G.A.

To be returned to the General Administrator, E.I.G.G.A., National Headquarters, Malden Green Farm, Worcester Park, Surrey.

I wish to enrol as a

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Times:
10 am till 5 pm daily.

Entrance:
By Catalogue £1. Complimentary admission to IoG Members.

How to get there: (Windsor is just 22 miles west of London.)

By Road: A few minutes off the M4 Motorway (Junction 6) on the Windsor – Maidenhead road (A308). Ample car parking facilities available.

By Rail: Frequent services to Windsor from Waterloo, Reading and Paddington with connections to all parts of the country. Coach service direct to the Exhibition from Windsor & Eton Central and Riverside stations.

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Estate Owner and Manager, Site Operator and Local Authority Employee.
ICI’s Popular ‘Secret’

While the use of Terram fabric membranes in golf course construction and maintenance is becoming increasingly commonplace, it is perhaps not surprising that there are still many greenkeepers who are unaware of the advantages in utilising what is — on the face of it — merely an alternative drainage/separation material.

But the growing confidence in Terram is based on real considerations — in preventing greens and bunkers from becoming waterlogged and unplayable, Terram fabrics have shown themselves to be more effective than traditional materials and easier to install.

Terram is a permeable non-woven textile material manufactured by ICI’s melting technique. It is synthetic — the constituent fibres being 70 per cent polypropylene, 30 per cent polyethylene.

Terram fabrics are lightweight, strong, resistant to rotting and chemical attack. Wet or dry they have good resistance to tearing. It is these properties that separate synthetic non-wovens from conventional textile fabrics and make them suitable for ground engineering applications.

Any reservations about the usefulness of fabrics for such seemingly inappropriate applications as ground drainage should be dispelled in the knowledge that Terram is used in place of traditional materials in civil engineering for subgrade/sub-base separation. And as a filter to protect drainage from contamination.

With over 12 years experience behind it, the industry now regards Terram as standard construction material. Greenkeepers who have used Terram express equal confidence in, and satisfaction with, the product.

The purpose of the Terram fabric for pathways and made-up areas is to separate the existing ground from the new material — e.g. aggregate, which will be used in the construction of the road, pathway, parking area, etc.

In all such uses, the Terram fabric is placed immediately on top of the soil and the aggregate is placed directly on top of the Terram.

At this interface, Terram will prevent the loss of stones into soft ground, thus keeping the structure level and eliminating the need for topping up. It will also keep the surface free from mud by preventing soil particles from being pumped up by the passage of pedestrians or vehicles.

The purpose of the Terram fabric in drains and soakaways is to protect the drainage from becoming blocked due to the migration of soil particles from the surrounding soil — thus, among other benefits, ensuring long life for the drain or soakaway.

In such applications, the Terram fabric is wrapped immediately around the drainage material. Should the drain be intended to take surface water, then the Terram should be covered with a permeable material such as sand.

In bunker construction, there are benefits from the inclusion of a permeable membrane between the sand and the drainage media. Comments from greenkeepers who have used Terram reflect their own satisfaction, and that of club members, at the improved maintenance and playing conditions.

- The bunkers drain satisfactorily even after very heavy rain.
- Raking bunkers after heavy rain is easier and takes less time.
- The need to dig over the bunkers is reduced.
- Consistency of sand remains good compared with that of untreated bunkers.

- As the sand is contained within the bunker by the membrane, the work of clearing drains is virtually eliminated.
- Terram has been used also to prevent the upward migration of stones through the sand.

In the construction of greens, it is usual to separate the drainage material beneath the surface from the finer soil particles of the growing medium. For this purpose, Terram can be used as a protective permeable separator.

Terram is normally supplied in rolls 4.5m wide by 100m long and in a variety of weights for different applications. For the convenience of users whose requirements are not so extensive, Terram is available in economic size minipacks of 11.5m by 4.5m (or other dimensions). Full installation instructions are enclosed in each pack.

Full details from ICI Fibres, Terram, Pontypool, Gwent NP4 0YD. Tel: 04955 57722.

BTIA Strives For Better Standards

The committee of the British Turf Irrigation Association recently held a meeting to review its main objectives and how to achieve them. The association is a small group of manufacturers, distributors and installers from the turf irrigation industry.

Its members have two common objectives. The first is to ensure that work carried out by members is up to the necessary standards. Local authorities and private sports organisations have become more cost-conscious and this usually means that companies competing for the projects have been forced to cut costs often to an unacceptable level. Members of the BTIA have drawn up a list of minimum requirements, which any installation must meet in order to be technically sound and it has now been decided that members should be recommended to forward the minimum requirements with each quotation.

It is hoped that all potential organisations seeking turf irrigation installations will, in future, ensure that work carried out for them meets these standards.

The second objective of the asso-
ciation is to increase the potential for installation of automatic turf irrigation among its members. This can, it is believed, be achieved in two ways. First, by educating potential customers on the advantages of this type of system. Second, by liaising with water authorities to ensure the complete safety of these systems and compliance with recommendations.

It is hoped to provide the press with features on automatic turf irrigation and periodic detail of progress towards the objectives outlined. Additionally, it is the association’s intention to participate in national seminars and organise a one-day seminar on irrigation systems for amenity areas.

Interested parties are invited to contact the secretary Bill Hawthorn at Courtenay Building, Monument Way East, Woking, Surrey GU21 5LY.

Companies represented in the organisation are British Overhead Irrigation, Cameron Irrigation, North Staffs Irrigation, Rain Bird Europe, Sports Ground Irrigation, Sports Turf Services, Toro International, Toro Irrigation, Watermation, Watermation (Scotland), Weather-Matic Europe and E. A. Yates.

Spreading The Word

Ten years ago, Ken Salt, managing director of Andrews Garden Machines, saw an advertisement in an American magazine for a centrifugal fertiliser spreader of special design. He wrote to the advertiser, Cyclone Seeders of Urbana, Indiana and negotiated an exclusive agency for the UK. Since then, Cyclone quality broadcast spreaders of granular materials, such as fertilisers, herbicides and seeds, have become widely accepted.

The Cyclone is basic equipment at golf clubs. Over 20,000 units are in use and the market for Cyclone spreaders is growing at the rate of ten per cent per annum.

The Cyclone spreads any dry, free-running material evenly over a two metre swath. Because the spread pattern is fan-shaped, the edges receive a lighter dose than at the centre — preventing ‘burning’ from overkill.

The rate of application is easily varied to suit different feeds and dressings — from 0.5oz per square yard (sulphate of ammonia or iron) to 8oz per square yard (sandbased top dressing). Andrews holds a comprehensive stock of part replacements.

Among the many models available are the X1A (also model 20) and X2A. These new shoulder-carried spreaders are ideal for quick distribution of all materials including herbicides, fungicides, pesticides, fertilisers and ice melters. Depending on cranking speed, the X1A will spread some materials over 20ft wide. The X2A model gives a narrower spread. Recommended retail prices are £42.

The Major Pedestrian (100) is a heavy-duty, large-capacity spreader and has a squared off hopper, which can hold up to 60kg of most fertilisers. It spreads in a two metre wide band and has all metal gears. RRP — £265.

The Wentworth Electric is specially adapted for use on modern high work-rate golf green mowers. It enables the greenkeeper to mow and fertilise a green in less than five minutes. The spinner is powered from the mower electrics and the spread rate is controlled. RRP — £207. (Prices include VAT).

For further information, contact Ken Salt, Bob Andrews, Unit 2, Pontiac Works, Fernbank Road, Ascot, Berkshire. Tel: 0344 885575.

Competition Time

New supplies of the popular Apollo competition charts are available to society secretaries from TI Accles & Pollock.

The charts are free and the company will issue up to six per request. Send orders (plus 40p to cover postage) to Golf Shafts & Sales Department, TI Accles & Pollock Ltd, Oldbury, Warley, West Midlands.

Free from the famous makers of golf club shafts, the TI Accles & Pollock competition wall chart is a must for any club or society.

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New Hydromain Seeder
The new Hydromain Seeder is mounted directly on the hydraulic linkage. Through the patented weight transfer system of the SISIS Hydromain, downward pressure can be applied to ensure penetration. The seeder will be useful for golf-course tees and approaches, football pitches, tennis base lines and cricket run-ups and ends.

A studded roller creates thousands of ‘plant pots’ to receive the grass seed, which is broadcast simultaneously. The spreader unit is based on the well-established Truspred principle of a ribbed rubber conveyor belt metering grass seed at the required rate.

And A New Sweeper . . .
Although the new 4ft Sweeper was introduced as part of the SISIS Hydromain System, other small tractors and power units are capable of handling this unit.

Unlike the 6ft SISIS Litamisa, from which this smaller sweeper has been developed, the brushes of the 4ft model are driven from the wide-tyred ground wheels and, therefore, no pto drive is required.

The rotating brushes collect and deposit leaves, grass cuttings, hollow cores and the general litter left after special events. The hopper can be emptied without the operator leaving his seat.

The Business Bus
The latest addition to Moodies fleet of mobile hospitality/exhibition buses is aimed at those who require an on-the-spot VIP suite or conference facility. Windowless for maximum privacy, the lower deck features a reception area with information desk and ample display surfaces, as well as a fully-equipped kitchen. Upstairs are three horseshoe-shaped conference/dining tables and a bar. Windows are glazed in solar-reflective glass. TV/video, an integral hi-fi radio/cassette, a choice of lighting, ample electrical sockets and a thermostatically-controlled heating system are included in the specification. These accessories don’t rely on a mains supply as self-contained generators can be supplied.

Enquiries to Jenine Moodie, Woodside, Holdfast Lane, Haslemere, Surrey. Tel: 0428 4310.

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WATERMATION is the leading British Company in this specialized field of golf course irrigation. We have designed and installed automatic systems for more than 200 courses, at home and abroad, including the top championship courses. We can offer you the most advanced equipment, plus years of experience and what is more, the determination to see your job done well.

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New Marketing Company Formed
Marketing expert David Jenkins and technical consultant Philip Threadgold have joined forces to form a new turf machinery sales and marketing company — Charterhouse Turf Machinery — to distribute machinery throughout the UK for the professional user.

The first franchise — the Verti-Drain from Holland — has been offered to the new enterprise and further contracts are being negotiated.

Contact Charterhouse Turf Machinery at The Old Mill, Mill Lane, Godalming, Surrey GU7 1EY.

The company is seeking new warehouse and administrative accommodation in the Surrey/Hampshire area but, in the meantime, can be contacted at its registered office.

Grass Seed Guide
A guide to grass varieties, their uses and care and maintenance, has been published by Mommersteeg. The Seedsman’s Guide To Amenity Grasses describes plant types and the way in which they grow and develop, as well as looking at Mommersteeg’s breeding department.

The company emphasises that although general guidelines to which variety is suitable for use in any specific situation can be given, it is frequently better to consult them for advice. This applies particularly in landscape reclamation and environmental planning and is the reason why Mommersteeg has established an environmental advisory division.

Landscaping for leisure areas and housing estates is covered in depth with basic advice on how to plan schemes that can be easily maintained. The development of low-maintenance grasses for use in areas where there is, for example, difficulty of access for men and machinery is included along with maintenance of more traditional areas.

A final chapter, If Things Go Wrong, lists some of the hazards that threaten turfgrass with guidelines on how to establish the cause of the problem.

The Seedsman’s Guide to Amenity Grasses costs £1.

Cost Guide
To help those responsible for determining the types of mower best suited to meet their requirements and for drawing up work schedules, Ransomes has produced a four-page leaflet entitled Operating Costs, which compares the cutting costs per acre of its commercial user machines.

The leaflet shows how the cost per acre for each machine is determined. The author, Ransomes’ technical manager Brian Mitchell, said: “It is only a guide, but where I have made assumptions it is possible for readers to substitute figures based on personal experiences and knowledge of their operations to reach a more accurate cost per acre figure.”

Copies of the leaflet are available from all Ransomes dealers or Trevor Knight at Ransomes, Ipswich IP3 9QG. Tel: 0473 712222.

For SISIS S.E.
Neville Gay has taken up the position of south east area manager for SISIS — a new appointment with the company. He will be working closely with area main distributors T. Parker and Sons (Turf Management) and with existing SISIS sales reps in the territory.

For SISIS S.E.

Improve texture and drainage on tees and greens with a top dressing of Fine Grade Cambark. A natural organic material alleviating compaction and producing long-term benefits.

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Distributed throughout Great Britain by Autoturfcare Limited, Commercial Division Faverdale West, Faverdale Industrial Estate, Darlington, Co. Durham. DL3 0QG. Tel: (0325) 55101 Telex: 587182
Flail Grass And Scrub Cutters For Small Tractors

Swinging flail-type grass and scrub cutters in working widths from 0.9 to 1.5m (3ft to 5ft) are now available for use on small four-wheeled tractors from Maulden Engineering (Beds).

Three point linkage mounted and pto-driven, the Agric range of flail Mini-cutters can tackle thick scrub and rough grass in neglected areas, using modest power inputs.

The smallest unit in the range, the 0.9m working width model 35C, weighs 120kg (264lb) and can be used on a 9kW (12hp) tractor. The biggest of the five Agric models, the 55C, weighs 200kg (440lb) and needs from 18kW (25hp) for a working width of 1.5m.

Adjustable skids on each side of the Mini-cutter provide control of cutting height up to 75mm (3in).

The gail assembly, driven by the tractor pto through a bevel gearbox, comprises a solid steel boss on the vertical drive shaft, with a substantial cross member made up of two flat steel sections. The two swinging flails are secured between the flat sections, one at each end.

Recommended prices for the Agric Mini-cutters range from £435 for the 0.9m 35C to £525 for the 1.5m cut 55C.

Agric Mini-cutters are among a range of farm and garden machinery, including rotary cultivators and ploughs, which have been imported from the Spanish manufacturers by Maulden Engineering (Beds), for the past five years.

Turf Herbicide Repackaging

Fisons Mecodex and Cambadex, selective herbicides for use on fine turf and outfields, are now available in new five litre and easily carried 20 litre polythene containers. These replace the old one gallon plastic container and five gallon metal drum.

Mecodex (mecoprop and 2, 4-D) controls a wide range of weeds commonly found in sports turf. These include daisy, clover, dandelion, pearlwort, mouse ear chickweed, creeping buttercup, plantains and yarrow.

As an alternative broad spectrum turf herbicide, for those who do not wish to use 2, 4-D, Cambadex (dicamba and MCPA) gives economic control of many similar weeds to Mecodex, including knotgrass. Both chemicals are approved under the Agricultural Chemicals Approval Scheme.

Martin Allen, product manager, said: “The majority of greenkeepers and groundsmen are working within tight budgets. With these chemicals, we have gone for effective, sturdy containers without expensive frills in order to give the user the best value for money.”

Cost of Mecodex and Cambadex is about £15 and £18 per five litre container respectively, £55 and £70 for the 20 litre size. Prices vary slightly according to the quantity purchased.

Key Men

Steetley Minerals has appointed Sports Turf Services of Newbridge, Midlothian to market its Key range of fertilisers and grass seeds throughout Scotland.

Contact Sports Turf Services at the Newbridge Industrial Estate, Newbridge, Midlothian EH28 8PJ. Tel: 031-333 2345.
Mowing Movie Made

The Cushman Turf Care System With Huxley Attachments is the title of a new colour film produced by Huxleys Grass Machinery and now available on free loan.

Offered in either 16mm, Fairchild cassette or video versions (VHS and Beta formats), the ten-minute presentation, with soundtrack, was specifically prepared by Huxleys for presentation at open days, shows, exhibitions, greenkeeper association meetings, customers' premises and training courses.

The film features the Cushman Turf-Truckster three and four-wheeled vehicles working with the full range of British-built Huxley implements for turf and grass care.

Both Turf-Trucksters are equipped with 18hp OMC petrol engines, three forward and one reverse speed gearboxes, live hydraulics and 1000rpm power take-off as standard. All-round hydraulic brakes are fitted to the four-wheeler. The three-wheeled version has hydraulically-actuated brakes on the rear wheels.

Options for the Turf-Trucksters shown on the film include a heated fibreglass cab, power convertor for plug-in operation of electrical equipment and rear-mounted dump box with tailgate release.

Featured at work in the film are Huxleys new hydraulically-driven Reelmowers, four specialist Aerators, and quick-fitting attachments for brushing, dragmatting, topdressing, spraying and mole draining. The hydraulic tipping dump box, low loading transport carrier and turf trailer show the all-year-round versatility of the Cushman System.

Further information from Paul Huxley, Huxleys Grass Machinery, The Dean, New Alresford, Hampshire, SO24 9BL. Tel: Alresford (096273) 3222.

The Yankees Have Arrived!

Yankee hand tools for the professional maintenance and care of golf courses are now available in the UK and Ireland from Huxleys Grass Machinery branches at Staines, Middlesex and New Alresford, Hampshire.

Yankee products were seen world-wide last year when the firm's Roller Squeegee was used at the Sunbury World Matchplay at Wentworth. Torrential rain during the play-off between Lyle and Ballesteros waterlogged the final green, but quick work by head greenkeeper Gerry Coley, his groundstaff and Yankee Roller Squeeges cleared the water.

Huxleys can supply two versions of the Roller Squeegee in different widths. The Standard model, available with either 610mm (24in) or 914mm (36in) wide rollers, is fitted with a non-absorbent, closed-cell sponge rubber roller for push-pull use on grass and other natural surfaces where dirt might clog on absorbent material.

Offered in the same two roller sizes, the Absorbent model is equipped with an open cell polyurethane sponge to collect water on artificial surfaces, such as concrete, tiles and asphalt.

Prices, in either Standard or Absorbent form, are £60 and £66 (excluding VAT) respectively for the 24in wide and 36in wide squeeges.

Yankee products handled by Huxleys also include rakes and blades, a tennis court line-cleaning brush and a litter spike.

The Yankee Roller Squeegee is designed to greens and other fine turf areas.

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Overcomes compaction problems and breaks up heavy soils.
An enzyme based product which increases soil fertility.

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Interested persons are invited to apply in writing, giving details of training, experience and anything else that may be relevant, to:

D. C. CHILTON, ESQ.

Vicars Cross Golf Club Ltd., Tarvin Road, Littleton, Chester.

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