Greenkeeper

JUNE 1982



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Greenkeeper

JUNE 1982

Publisher: A.Quick & Co Ltd Managing Director: Michael Coffey Editor: Robin Stewart Advertisement Manager: Kay Moss

Contributors: Jim Arthur, John Campbell, Fred Cox Eddie Park, Frank Pennink, Donald Steel, John Stobbs

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Front Cover: the 18th fairway at Royal Troon, venue for this year's Open, with the Watermation automatic irrigation system working. Watermation first installed automatic irrigation on the greens at Troon in 1974 and then on tees and some fairways and approaches in 1976. Other improvements have been added since.

The course is now, without doubt, one of the best in the course is now, without doubt, one of the best in the country and the head greenkeeper Norman Ferguson and his team can be justly proud of their work. Contact Watermation at: Monument Way East, Woking, Surrey. Tel: Woking 70303.

4 News & Notes

Four pages of topical chit-chat, including a new section by John Campbell.

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All advertising matter, editorial copy and correspondence should be sent to: *Greenkeeper*, 121-123 High Street, Dovercourt, Harwich, Essex. Tel: 025 55 7526.

Subscription rates: UK—£9.50 Continent and USA—£15 Eire—IR £15

The Proof Of The Pudding...

This was seen recently at Lindrick in South Yorkshire—venue for the Martini International in May. The course—as featured in The Way The Wind Blows last November/December—was presented in superb condition for the tournament, despite the problems of a severe winter, which included an attack of fusarium, as well as the course having to be forced along for so early a date in the season.

If ever vindication was necessary, here is the proof of what has so long been advocated through the pages of *Greenkeeper*—a course that has reverted to basic greenkeeping beliefs.

Not surprisingly, Jim Arthur has been advising the club for a number of years and for the Martini was doubly involved in his capacity as advisor to the PGA European Tour. Eddie Park and son Nick have chaired Lindrick's greens committee for most of the last 13 years and, with the greenkeeping team headed by Harry Herrington, have returned this historic course to its former glory.

Although I needed the expert assistance of Dr Peter Hayes to point out the various species of fescue and agrostis that have now reinvaded Lindrick's greens, I needed no such help when it came to appreciating putting surfaces that will be



Harry Herrington (left) with Lindrick's greenkeeping staff.

the envy of many, a joy to those who play on them and an example to all.

Congratulations, then, to everyone concerned for providing the pros with not so much a test, but more of a scholarship

paper. If this sounds like a pat on the back for *Greenkeeper* then so it is and the proof of the pudding is there for all to see, over the wall of the A57!

Michael Coffey.

History In The Making

When visitors arrive at Ransomes, where 150 years of lawn mower manufacture is being celebrated, they are often fascinated by a vintage lawn mower in the entrance to the main offices.

If it hadn't been for a chance call on a customer 50 years ago by Bill Akesterwho later became the company's sales director-it would not be there now ...

When working at Ransomes' retail branch in Ipswich, it was Bill's job during early spring to visit the large estates in Suffolk and promote the company's motor mowers, which, in many cases, replaced not only hand mowers, but machines drawn by horses.

Bill was at Lord Henniker's home, Thornham Hall near Eye, speaking to the head gardener Mr McIntyre who had read an article in the East Anglian Daily Times about Ransomes' centenary.

Mr McIntyre had seen an old mower featured in the article and told Bill that



Lord Henniker had one like it. And, sure enough, there in a shed was a model of a Budding's mower the company first made under licence in 1832.

Such was the desire of Ransomes to acquire this historic machine-as only two models were known to exist, one in the Science Museum, London, the other in Australia-that the company chairman wrote to Lord Henniker, who replied by saving he was pleased to present the Budding's mower to Ransomes.

Bill, who has retired, is as busy today as ever, researching the history of two Suffolk villages.



By John Campbell

A greenkeeper's life is not an easy one even in Canada, according to reports from a friend who is superintendent at a well-known club near Toronto. In that country, the tranguility of a greenkeeper's life depends on the support of the powers that be.

After 19 years service, he decided to break with the tradition of an honorable verbal agreement with his work contract. He hired a lawyer and was able to achieve a generous increase in salary and more favourable terms of employment. Maybe there is a lesson to be learned for British greenkeepers.

Russell Brown, who was head greenkeeper at Princes Golf Club, Kent, has returned to his native Scotland to take up an appointment at Turnberry. He will be working with that grand character Jim McCubbin, who has been responsible for the upkeep of the famous courses for many years.

The Ransomes' 150th anniversary theme 'A Great Tradition' is well justified. Few companies can claim to have been a world leader for so long. The company's sales record is quite remarkable with exports currently accounting for some 40 per cent of sales. Originally, Essex. Tel: 025 55 7526.

Never Stop Searching For It!

In Royal Liverpool's august clubhouse there's a new-looking gutty ball, the owner's name still stamped clearly upon it. Club members were still stamping their names on golf balls up to the 1930s.

On the glass case, there's the legend: When making alterations to the Punch this was mainly with Commonwealth countries. Today, as much as 24 per cent of Ipswich production goes to EEC countries, other than Britain, with an increasing volume to North America.

On a visit to the SISIS factory a few weeks ago. I had a sneak behind the scenes to see some of the current development work and can reveal that the company is planning some exciting new products to add to its range. Later this year, we can expect to see the results when the curtain is raised at Windsor.

A new product from May & Baker will be of interest to greenkeepers who have the problem of fairy rings, which are caused by different fungi in the soil. The infestation gradually spreads outwards from a central point making an ever-widening circle. It is generally found that, at some time of the year, the grass surrounding the outer edge of the ring is stimulated to a deeper green while immediately behind this area it may be damaged or even killed.

Quite a number of fungal organisms can produce rings, some being easily recognisable by the fructifications. Puff balls and certain types of mushroom frequently grow in this manner but cause no real harm to turf. There is one type however, Marasmius oreades, which can cause serious trouble in turf and this is the true fairy ring fungus.

Marshall Concessionaires is to launch two machines in the UK this summer. One is designed to relieve soil compaction to an amazing depth of 16 inches. The other is an out-front, seven-cylinder, hydraulically powered mower mounted on a multi-track 50hp JL tractor.

 Greenkeepers and trade representatives are invited to send or phone news to John.

Contact him at: Greenkeeper, 121-123 High Street, Dovercourt, Harwich,

Bowl (9th) hole in November 1953, this hand-hammered gutty ball, lost about 1879 in a rabbit hole by R.W. Brown was found and given to his son David, who presented it to the club.

For a lost ball to be returned to the familv 74 years later must be a record ...

BGGA Section News

Surrey section's last winter lecture was held at Royal Mid-Surrey Golf Club recently. The talk was given by Richard Bishop of Ransomes.

The annual dinner and dance attracted 150. Greenkeepers, wives and friends, with the trade well represented, enjoyed the evening, which included speeches by J.C.Parker, president of the section, and chairman Bert Watson. Hugh Brown, a past chairman of the southern section, replied for the visitors and thanked those responsible for the organisation.

The section presented Mrs Frank Brittin with a bouquet of flowers in recognition of her work during the year. Frank also received a gift for his work as secretary.

Finally, thanks went to Alan Morton, David Johnson, Jim Liddington and David Wyborn for the arrangements.

On May 10th, Surrey played its spring tournament at the RAC, Epsom.

The AGM will be held at New Zealand Golf Club on June 14th. During the afternoon, an 18-hole Stableford competition for the Cresta Bowl will take place, commencing at 3pm.

It is important members attend the AGM as replacements have to be found for Alan Morton, Bob Wiles and Hugh MacGillivray on the committee. It is hoped younger greenkeepers will be prepared to take office.

Graham Beesley will be keen to see a large attendance as he is giving all the proceeds of the day to charity.

Members who have not paid their subs should send them to Frank Brittin or Bert Watson immediately. If they don't, they will be struck off the Journal mailing list. Subscriptions are the same as last year— $\pounds 12, \pounds 8, \text{ and } \pounds 7.$

IOG Settles In

The Institute of Groundsmanship has now taken occupation of its new administrative offices and training grounds at Woughtonon-the-Green, Milton Keynes, Buckinghamshire.

As well as handling all administrative matters, Woughton Pavilion will also be the home of the institute's educational committee and later this year there will be a series of training sessions on the maintenance of general turf areas, cricket squares and bowling greens.

It is also planned to demonstrate machinery, equipment and techniques at the Woughton sports ground in conjunction with leading manufacturers and suppliers and national sporting organisations.

The institute will also be developing its programme of courses and seminars through its 50 branches located throughout the UK.



Part of the IOG's impressive new headquarters.

Two For Rigby Taylor

Rigby Taylor has appointed Roy Dagnall amenity and recreational consultant, with responsibility for local authority and industrial outlets in the north of England.

Richard Lawrence, formerly with May and Baker, has been appointed marketing manager. Richard will deal with all aspects of marketing for Rigby Taylor fertilisers, both north and south, as well as the Rigby Taylor paints division. director, commented: "these posts, along with the opening of Rigby Taylor (South) earlier this year, emphasise Rigby Taylor's commitment to this market and underline our confidence in the future. It has always been our intention to provide a service of the highest standard and I am certain these appointments will enable the company to provide a more efficient service to customers."

Derek Phillips, chairman and managing



Now It's A Fair Cop

The 7th (known as the Dowie) of Royal Liverpool's links at Hoylake has been slightly modified recently in reaction to debate about whether a small green abutting a low out-of-bounds bank called the cop was fair.

For several major events in recent

times, an out-of-bounds-over-the-cop rule had been suspended.

Last year, the club called in Frank Pennink to suggest ways of resolving the problem. The result is a larger green, slightly down at the front and up at the back and extended in area.

Pictured during his first visit to Ransomes since being appointed director of the Sports Turf **Research Institute at Bingley is Dr Peter** Hayes (centre) with Ransomes' sales director Guy Catchpole (left) and sales manager John Wilson.

Dr Hayes stopped during a tour of the factory to inspect a Mastiff motor mower, a number of which are being used by clubs hosting the World Cup in Spain.



For Openers

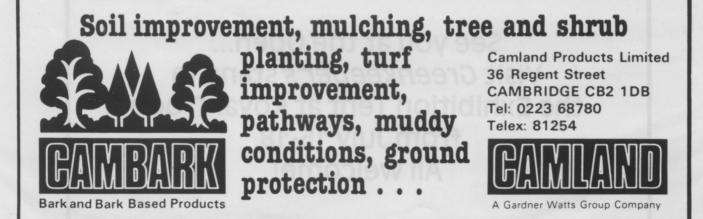


The Lord Lieutenant of the Royal County of Berkshire, Colonel The Hon Gordon W.N. Palmer OBE, TD, JP, MA, DLitt (above) has accepted the invitation of the Institute of Groundsmanship to perform the official opening ceremony at this year's International Exhibition.

Colonel Gordon Palmer is a greatgrandson of Samuel Palmer, a co-founder of Huntley & Palmers. He was born in 1918 and educated at Eton and Christchurch, Oxford.

He joined his ancestor's firm in 1946. was appointed a director in 1948 and eventually became managing director. On the formation of Associated Biscuits in 1969, he was appointed its sales/marketing director and later chairman and managing director.

DAVID EDDY, previously at the Vale do Lobo Golf Club on Portugal's Algarve, has moved to the Golf and Country Club, Salzburg, Austria.



Elmwood Conference Report



Jim Arthur (standing) makes a point during the lively brains trust session. Also pictured (from left to right) are: W.Woods, J.Kidd, M.Jones, J.Shildrick, P.Bowen, D.Lowden and A.Gardner. And part of the extensive machinery exhibition.

Elmwood's annual greenkeepers' conference again attracted delegates from all over Scotland. Conference chairman was Walter Woods, supervisor of the St Andrews Golf Courses, who welcomed delegates and introduced speakers.

John Shildrick, assistant director of the Sports Turf Research Institute, Bingley, spoke on turf grasses of the future and on turf diseases.

Dealing with grasses for fine turf, only three fescues were mentioned as being appropriate for close-mown turf—chewings fescue, slender creeping red fescue and hard fescue—strong creeping red fescue being non persistent under close mowing (5mm) and the two very fine leaved species, sheeps fescue and fine-leaved sheeps fescue, although persistent under close mowing, grow in unattractive whorls and are prone to red thread disease and discolouration in drought.

It was noted that, after artificial wear treatment carried out at Bingley, strong creeping red fescue showed poorer wear tolerance when compared with slender creeping red fescue and chewings fescue.

It was also noted that the more thatch present on the surface, the greater the cushioning effect and the better the tolerance to this type of wear. The slender creeping red fescue cultivars Dawson, Merlin and Polar, which have done well in trials, show good compactness and persistence when mown at 5mm and compared with other fescue cultivars, although all three have proved to be more susceptible to red thread disease than the rest.

Mr Shildrick said: "Chewings fescue complements bent grasses for fine turf in

three aspects. It has finer and more erect leaves, produces a good green colour all year round and resists diseases that damage bent, without serious disease problems of its own.

"Its weaknesses compared with bent are that it offers less competition against other grasses and is unable to spread rapidly to fill bare areas. The most compact cultivars include Barfalla, Frida, Wintergreen and Koket."

Hard fescue, it was pointed out, might be added to a mixture for dry and relatively infertile conditions, particularly as the recently developed Dutch cultivars Biljart, Scaldis and Tournament help, with their dark colour, to add greenness to turf discoloured by drought.

Grasses

Turning to the bent grasses, Mr Shildrick explained the role these grasses played in fine turf mixtues and pointed out that because of the distinctly different habit of growth of agrostis tenuis 'Highland', which produced very vigorous rhizomes, a new name agrostis castellana had been given to this grass, also previously known as 'Oregon Browntop'.

Dealing with annual meadow grass, one of the most widely occuring grasses of swards in the northern (Europe) hemisphere, Mr Shildrick said that this species covers a wide range of plant types ranging from true annuals through various biennials and short lived perennials to longer lived perennials, which were small leaved and formed low dense rosettes that spread slowly. Although the annual forms are regarded as weed grasses, particularly in fine or ornamental turf, the perennial forms are hard wearing and tolerant of close mowing, able to replace themselves by seeding at all heights of cut and grow all year round—even on compacted soils.

Annual meadow grass, he thought, gave more live cover of green grass after both spring 1979 and winter 1979-80 conditions when compared with other grasses in trial plots.

James Kidd, course manager at Kilmacolm Golf Course and representing the younger generation of head greenkeepers, spoke on the future for golf greenkeepers. He highlighted the important qualities desirable in a head greenkeeper's make-up and emphasised the need for training and education at all levels.

It was suggested that the future would be more secure without the tied house system and that the head greenkeeper would appreciate the opportunity to present his own work schedules and argue for investment on the course if he were a respected member of the management committee of the club.

Mr Kidd's last suggestion was a plea for the media, particularly television, to play a part in improving the head greenkeeper's image by highlighting the planning, programming and organisation that goes into the preparation of a golf course for a major tournament.

Alex Gardner, president of the Scottish Golf Union, spoke on the structure and organisation of committees at an average club. The problem area of the greens convenor who, in certain circumstances, may

The Way The Wind Blows

THIS year's US Masters produced several unexpected incidents, suspiciously akin to golfing farce. Distinguished performers were seen on TV putting in u-loops around holes, with balls failing to come to rest and rolling on.

Farce is probably one of the politer words sufferers applied to this kind of misfortune. It was clear the putting surfaces at Augusta did become just that shade over the top in speed of roll, which can turn a test of nerve and skill into putting roulette—hit the hole and you drop, miss it and you need three more.

For the final day, the Masters administrators slowed the greens down a bit and all was sweetness and light again.

The danger of this Masters policy might be that well-intentioned people in our clubs will have been tempted to cry: 'There you are! All this demand for fast greens is a load of bolony, isn't it? It just makes a nonsense of the game.

Then they might be tempted to do their best to persuade club committees to go on bunging on water, coarsening the grasses, keeping up the blades and reverting putting to the kind of bumblecroquet inflicted upon so many keen golfers over these past twenty years or so.

Probably (and I hope) I exaggerate such effects. Nevertheless, we might as well record the fact that, as sure as the Masters greens did go over the top, the chances of anything similar ever happening here for the monthly medal remain, as ever, just about nil.

That is not to say that first-class clubs who really care for their putting surfaces do not occasionally succeed in making them just a bit slipperier than even devotees of fast-putting surfaces might appreciate.

Nor that a period of continual cool dry easterlies setting in after the start of the growing and mowing-down season, cannot occasionally produce a slippery day here and there—especially now that some clubs use verticutting as a means of speeding up putting surfaces.

(Unwisely, in my opinion, since verticutting can often make the ball roll less true for anything up to a couple of days, especially when taken down beyond the mere surface.)

Surface

The vital criterion of any putting surface is quite simply how truly a ball rolls over it. If the ball bobbles at all, it's a lousy putting surface and that's that! But, given a true surface, one which putts fast enough to let the player genuinely roll the ball at the hole makes for far better golf than one which requires him to bonk his putts hard all the time.

The slow, true green may well be negotiable all right on longer putts (if without that special sensation of stroking the ball you get on fast greens), but when it comes to holing out short ones, or even 12-footers, only a fairly fast green will ever give you completely true roll of the ball into the hole.

I see no objection to the use of the Stimpmeter, even if it is an American invention. (After all, they re-invented the wedge back in the 1940s and who'd wish to be without one now!)

The Stimpmeter offers us all a completely objective guide to the best pace for a putting surface. Used properly, it reveals conclusively how fast or slow our greens actually are on any day, as a matter of fact as opposed to just opinion or personal preference.

The standards recommended by the USGA for its application to all kinds of golf offers us all at least a basic set of criteria, which we can adapt by practical experience to apply to our courses.

To keep fast putting surfaces perfectly true all the year round—which must always be the most vital component in what good golf is all about—demands only the highest greenkeeping aims, methods, consistency and understanding of local ecology.

And that means, of course (as Eddie and Nick Park pointed out recently), not just the course manager or head greenkeeper and his staff, but club administrators and committee men as well.

In the long term, this must mean rates of pay that reflect the degree of professionalism for all club staff responsible.

know nothing of turf culture and who may have been elected to this important post for reasons quite divorced from a knowledge of turf culture was stressed.

Mr Gardner's final point concerned the neglected, but important, area of new member induction and suggested that beginners should receive some help in identifying and implementing the more important aspects of course etiquette.

After lunch and a visit to the extensive machinery and sundries exhibition, delegates heard Martyn Jones, lecturer at the Lancashire College of Agriculture and Horticulture, speak on the construction of golf greens.

Mr Jones began his talk by discussing the properties of various materials found in top-soil and then went on to describe the ways that clay, plantcover, organic matter, lime, microbes and worms influence soil structure.

The need to build or 'design' a soil suita-

ble for use on golf areas was emphasised, but it was pointed out that this was not yet standard practice in the UK, though the basal construction of a stone raft over closed drains and separated from the topsoil by a sand or gravel layer or fibrous sheeting was widely accepted.

Peter Bowen of Fisons then gave a short talk on fertilisers for fine turf. David Lowden, a Royal and Ancient member and past member of the championship committee, spoke on golf conditions for top amateurs and professionals.

Mr Lowden underlined the importance of the relationship between the course committee and the practical staff, the problem of 'know it all' greens convenors and the need for club members to take much greater care of the course instead of criticising it.

Jim Arthur was the final speaker. He spoke on golf-course construction and contested much of what had been

suggested by previous speakers. Among the major reasons for bad design and construction on the golf course, Mr Arthur suggested the following: 1) bad course architects; 2) use of unsuitable land for course building; 3) ryegrass fairways; 4) the use of USGA specifications, which did not work on this side of the Atlantic; 5) badly designed pop-up irrigation systems providing bad water distribution, overlapping and under-watering; 6) bad design in the form of greens and fairway layouts copied from other courses and imposed on unsuitable sites.

It is hoped to hold a similar conference next year and a date has been set provisionally for March 23rd, 1983.

Golf clubs that did not receive details of this year's conference should write to: Mr M.L. Taylor, Head of Horticultural Department, Elmwood Agricultural and Technical College, Carslogie Road, Cupar, Fife.

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Spotlight On...

A WIDESPREAD rise in the amount of play on British courses has, unfortunately, been accompanied by a marked fall in the playability of many of these courses.

For some time now, many people have been looking for effective ways of improving education for greenkeepers. A move that seems to be supported by the greenkeepers themselves, as it will increase their potential status and remuneration.

The most recent attempts, started seven years ago, have been dogged by criticism and poor support from clubs in England and Wales especially.

Greenkeeper begins its investigation with the body producing the syllabus and examinations. Eddie Park (himself liaison officer for



Eddie Park

Yorkshire training) asks questions of Norman Sayles, co-ordinator of the City and Guilds Institute with responsibility for agriculture, forestry, horticulture, floristry, groundsmanship and greenkeeping.

• Jim Arthur writes on greenkeeper training and the City and Guilds.

Turn to Open Fairway—Page 12.

Park: You have come in for a lot of criticism in the past from people like Jim Arthur. You probably now regard this kind of criticism as being rather unfair. Perhaps we can work our way through these points. Let me start by asking who puts your syllabus together?

Sayles: It depends which syllabus you are talking about. The first was the 013 Greenkeeping Certificate syllabus, which was put together by a group of commercial greenkeepers in the late 1960s/early 70s. This was replaced by the syllabus produced in 1976 and 1977 by college staff and local authority representatives on the assumption that the majority of candidates coming forward would be from the local authority sector. Latterly, the new twoyear Greenkeeping Specialist Scheme was devised by representatives from the colleges and the greenkeeper training committee.

Park: When you talk about commercial greenkeepers are you really talking about greenkeepers from private clubs?

Sayles: Yes, that's right—non localauthority golf clubs.

Park: Just reading through the syllabus, it strikes me that it seems to be largely an extension of horticulture. I can think of at least one college principal who has remarked to me that horticulture and greenkeeping are almost diametrically opposed. What are your comments on that?

Sayles: I can understand your feelings on this, but I think you are referring to the scheme that was produced to satisfy the needs of local authorities as a three-year scheme. The first year was common to anyone in horticulture; the second common to all people in local-authority parks departments and the third year specialised in decorative horticulture, groundsmanship or arboriculture.

Park: What about the most recent scheme?

Sayles: The latest scheme, which we hope to introduce from September 1982, has excluded all aspects of horticulture that are not directly relevant to greenkeepers. There are minimal references to flower beds, etc, which were put in to help commercial greenkeepers who might, for instance, have to attend to flower beds around the clubhouse.

Park: Who are the examiners?

Sayles: They are appointed by the institute. We try to find people with a reputation both in the industry and the colleges. For Amenity Groundsmanship (Local Authorities), the examiner is Nick Bissett of Askham Bryan. For the proposed new Commercial Greenkeeping it will be Dennis Mottram of Cheshire.

Park: I always say greenkeeping starts with botany, ecology, soil science and basic machinery. To what extent are these covered in the new syllabus?

Sayles: It is difficult for me to talk about coverage of different subjects in courses. The aim of the syllabus we have put together is to act as an examination syllabus, which will inform college staff, students and representatives of the industry what subjects are likely to be examined at the end of the day for the award of a final certificate. I would expect college staff to interpret those subjects in different ways, depending on their own background and experience and the background of the individuals they are teaching.

Park: That leads me on to my next question. Do you think that this highly specialised subject really can be taught in agricultural colleges scattered up and down the country?

Sayles: I would say that as long as the clubs themselves can put forward sufficient numbers of candidates to maintain the interest, then I am sure the staff in these colleges have the knowledge and experience to make the courses worthwhile and beneficial. Mr Arthur suggests having two or three centres of specialist knowledge but, although this appears to be an attractive idea, I would question whether clubs would be prepared to allow their staff to take the time off that would be necessary for such a method of training and, indeed, if they would undertake to pay for it!

Park: There is an assumption in all City and Guilds schemes of a large emphasis being placed on the craft element. In greenkeeping, the major problem that has appeared over the last few years has been the one of heavy play and we are demanding far more scientific and logical methods of overcoming the effects of this. To what extent is this new approach reflected in your new syllabus?

Sayles: I suspect that what you are really

Spotlight On...

talking about is a much more highly trained person coming to work on golf courses than has previously been the case. You are certainly being too optimistic if you think that the 17 to 18-year-old who has been through our scheme will be up to that standard. He will still have much to pick up in the way of background knowledge on his way to becoming a head greenkeeper. Perhaps you are really suggesting that the time is approaching when future staff on golf courses will be much more highly trained than hitherto and here the HND and even university degrees have a part to play.

Park: Yes, so perhaps there is a confusion here. We are looking for both early training (ie. undergraduate) followed by postgraduate education and the two are separate. There is no way the institute examination can fulfil both roles.

Sayles: That is an important point to bring out. It would be most unfair for a golf club to send a boy for two years' training and then expect to have a fully fledged greenkeeper. Our further education schemes aim to give an individual the background knowledge to a subject. It is then up to the employers—in this case, the golf clubs to build upon in conjunction with the individual.

Park: To sum up so far, then, it is probably fair to say that your courses have come under fire for two main reasons. The first was the degree to which they were slanted at the local authorities' greenkeepers and the second was the question of teaching the basic subjects that are now required for the modern specialist greenkeeper. We have passd through an unfortunate era of the over-use of chemicals and watering. Now we are looking for management based on applied ecology and soil science. That is far more difficult and requires a much greater knowledge of scientific subjects. Also, their application is so much the reverse of horticulture and agriculture that these colleges may just not be the right places.

Sayles: That's fair comment, but I would not like to become involved in the argument about how golf courses should be managed because it is not my own particular speciality. I think the teachers themselves might possibly benefit in the future from some sort of refresher courses whether these be run at universities or at the STRI, Bingley, and, rightly, Jim Arthur constantly emphasises that re-education throughout the whole system must start with re-education of the teachers themselves.

Park: Moving on to the exam itself, at the end of the day you have to run a viable operation and you need a minimum number of students throughout the country to ensure this. What sort of numbers are we talking about?

Sayles: We work on a figure of 200 students throughout the country to produce a viable scheme.

Park: This is approximately one greenkeeper for every eight clubs, which does not sound a high target.

Sayles: No, indeed, but if you look at the number of students who have come forward to such courses as existed over the past five to ten years, it is, in fact, far below that. For what I call commercial greenkeepers, it has run at about 130 to 140 per year for England and Scotland. Scotland has now produced its own scheme through Scotec, which will take some 60 to 70 students each year. You can see how many we are left with.

Park: So, you are now looking for a response from the clubs—the paying customers—to bring the numbers up to the sort of level that is needed. What happens if these numbers are not forthcoming?

Sayles: I feel that we have now produced a scheme that concentrates on greenkeeping and greenkeeping machinery. We have agreed this in consultation with the greenkeeper training committee, but we have also said that, if the numbers are not forthcoming, then we shall have to consider withdrawing the option—ie, the scheme—and there would then be no City & Guilds involvement in greenkeeper training.

Park: Demand from the clubs is obviously a crucial element. It seems to me that interest waned in the training scheme when it went from two years to three years. This happened for a particular reason, didn't it?

Sayles: Yes, this was due to a demand from the local authorities (or, more accurately, the Local Government Training Board and National Joint Council) that all people working for local authorities should take an introductory two years education in general horticulture, followed by specialisation in the third year. Unfortunately, the independent golf clubs—and people such as yourself and Mr Arthur—found this unacceptable and, thus, we are now introducing the two-year option for commercial greenkeepers. To that end, the existing third year in the local authority course is to be renamed groundsmanship and sports turf management, whereas the commercial course will be known as greenkeeping and sports turf management.

Park: It does seem to me that City & Guilds has tried very hard to satisfy the needs of the greenkeeper training committee and the local authorities. Yet, there is still a fair amount of criticism flowing from some quarters!

Sayles: We are certainly still being criticised by Mr Arthur and I am not sure why. It is apparent that many of his arguments are based on ignorance and an inability to comprehend the content of the scheme as now produced. He has said the new scheme is little different from the old. Others are prepared to let the new scheme come in and settle down.

Park: What are you doing to advertise your schemes? Even I did not realise that you would soon have two schemes running in parallel. One for local authorities and one for private golf clubs.

Sayles: We launched the scheme initially through our broadsheet Grass Roots, which goes to the greenkeeper training committee. We have circulated county secretaries asking for comment and criticism. We had few criticisms and they were incorporated in the scheme, which is now being placed before our examinations committee and we hope the revised scheme will come into effect from September. I stress everybody in the industry has been given an opportunity to comment on and criticise the scheme now being introduced. The institute cannot afford to go on revising and revising. If those in the industry have had the opportunity and have not taken the opportunity, then I say do so now before it is too late.

Park: Thank you for untangling your end of greenkeeper training. I hope to follow this up by talking to Peter Wilson, chairman of the greenkeeper training committee, and I am sure we will be trying to bring home to clubs and head greenkeepers the urgent necessity to support this scheme if they wish it to continue.

Open Fairway

More Views On Training

I read with interest the revealing interview by Ed Park with Norman Sayles (see pages 10 and 11).

If my "arguments are based on ignorance and inability to comprehend the content of the scheme now produced" which I deny—then whose fault is it? No one has ever bothered to keep me informed and my repeated offers to exchange views have met with not even the courtesy of an acknowledgement, until January this year, at the instigation of Peter Wilson, who was (as he confessed when we met subsequently) surprised at the promptness of my response as he thought I was merely 'knocking' the scheme.

What I object to in the scheme is the confusion between greenkeeping and horticulture—and even between greenkeeping and groundsmanship, but above all the lack of a clear directive on how to teach the syllabus.

I am glad that Mr Sayles accepts my constant theme of the need to train the trainers. He condemns the scheme in his own words in that he accepts that he "would expect college staff to interpret those subjects in different ways, depending on their own background and experience."

Precisely so! We have college lecturers telling their students that Jim Arthur talks rubbish, yet those same students come from courses in some cases where I have advised for years and where the rubbish does seem to produce excellent results, due to the full partnership between Head Greenkeeper and adviser.

It is too difficult for most lecturers to learn for themselves and amend their ways—or to accept the truth of the old greenkeeping adage "ask a farmer—or agricultural adviser—what to do and go and do exactly the opposite."

I produced a list of examples of what I objected to—to quote two—"explain the advantage (and disadvantages) of nitrochalk, limestone and basic slag"— "explain why it is convenient and expeditious to use compound fertilisers in turf management—granular fertilisers are easy to apply."

These reveal the most horrific lack of understanding of sound greenkeeping and it is easy to see how intelligent young men are confused by opposite teachings—and less intelligent adopt all the heresies of over-fertilising (and overwatering) which have been pumped into them by commercial interests.

But, above all, it has been kept very

much secret that the three year, horticulturally based (and biased) course was introduced to suit Local Authorities' demands and <u>not</u> the bulk of golf clubs who, on the whole, run the best golf courses.

Of course golf clubs will pay their staff to attend block release training—I have arranged for a number of even English clubs to send their young men to Elmwood. It is so much better than day release, which disorganises management far more and is less rewarding to the student. It also enables a higher calibre of

The Three Wise Men

Great minds think alike! And when Jim Arthur, Eddie Park and Michael Perkins reach the same conclusions in *Greenkeeper*, while considering good turf management from widely differing viewpoints, there is need to take those conclusions further.

Of course, 'the answer lies in the soil.' It always has done—even if we have allowed the siren voices of progress and development (not to mention aggressive marketing!) to lure us towards 'instant' improvement through more and more use of newer and better chemicals, fertilisers and the rest.

Turf is an infinitely complex arrangement of grass, soil and organisms, which must co-exist in balance and harmony. Neglect of this fundamental truth gives rise to all our problems because soil is not just an inert mass in which grass roots itself, it is a constantly changing, living mass that continually moves and provides water, food and shelter for roots, insects and micro-organisms.

It is these life forms—bacteria and fungi—that need more thoughtful attention and their activities in the soil can be harnessed to our own efforts to provide strong, healthy turf.

And don't panic at the idea of fungi being beneficial! The reality is that 95 per cent or more fungi do play a constructive role. There is a vast amount of fungal activity in most soils being carried out by harmless, vigorous species, which are at work digesting dead grass, roots and thatch to provide Humus.

These common soil fungi are among the most powerful digesters of organic matter, producing in their own waste growthinducing and beneficial chemicals, which we still do not understand properly.

Although we do not see what goes on underground, we must not forget that it is more specialised staff to concentrate on pure greenkeeping and will make it easier to stop the heresies being preached in direct contravention of the methods by which most of the courses in Britain (<u>in</u> <u>good order</u>) are being maintained today.

If we can all get together and work out a better scheme, we shall produce better, more professional greenkeepers and so better golf courses.

J.H. Arthur B.Sc. (Agric.), Little Garth, Charlton, Banbury, Oxon OX17 3DP.

one of nature's most complex and vigorous areas of activity, which we can assist by using materials that produce that vital balanced beneficial response from the soil.

The use of totally organic material develops natural materials and practical solutions to the problems of healthy plant growth because, from its original state as seaweed, it contains all the necessary elements correctly balanced and blended by nature itself.

Its action engineers the soil in a completely natural way to produce a friable structure from which flow the benefits of improved aeration and better drainage.

In so doing, it deals with thatch—the greenkeeper's number one enemy, which is returned to the soil as Humus as nature's way of recycling and returning all the waste products of growth.

The business of a greenkeeper is the promotion of good health in his turf, making it more resilient to wear, resistant to disease and able to withstand the pressures of increasing use and wear.

As Jim Arthur has indicated so tirelessly, it is the art and skill of the green-keeper that will be the prime factor in his success.

The 'tools' of our age—irrigation, balanced plant foods, insecticides, fungicides, sophisticated machinery—must be seen as servants and not masters.

The use of a natural soil engineer promotes slowly, but progressively, an increase in microbial activity redressing much of the imbalance caused by lack of natural trace elements and improves soil structure dramatically. Thus, it promotes soil health and lays the essential foundations and building blocks for the establishment of durable healthy turf.

Malcolm Pettit, Marketing Manager, Alginure Products.

Open Fairway

You've Got It Right!

My Method

My father picked up several copies of your outstanding publication while visiting the British Open last year. As a golf-course superintendent, I was absolutely amazed at the quality and quantity of your writing and commentary.

After I perused each copy, I realised that you people have acquired a very sensible and prudent method of course management over in the UK.

As the American economy has suffered, we are reverting to a management style that deviates from spoiled turf to healthy turf. Because of this new perspective, many of the people who have had money to burn in the past are now faced with tougher decisions as to fertiliser, pesticide, equipment usage and expenditure.

This new management perspective has been quite interesting to the members of our association. As the education chairman of this group, I have been requested to compile a report to be presented at one of our meetings on 'British Greenkeeping'.

Raymond Richard, New Hampshire Golf Course Superintendents' Association, USA.





The SISIS Outfield Spiker.

When SISIS brought out its new Hydromain, our rep for Norfolk Bob Chesham said to me: "Why don't you try the new 6in slitting tines on your outfield spiker?"

I was a little apprehensive as I had been told that these new 6in tines would not penetrate and would also be liable to tear up the turf.

However, I placed an order and Bob told me that a small modification to the tines was necessary. This meant cutting and reshaping the middle tines.

A test was carried out and, to my surprise, the tines went in and came out cleanly. As these slitting tines are long and narrow, a greater depth can be achieved.

With the increase in golf being played, resulting in greater compaction, there certainly is a need for this type of equipment.

As you can see from the enclosed photograph, the machine adequately fills its role as a stonepicker—a problem you get when construction is not carried out to specification. Fortunately, not all our greens have stones this size.

I have a Cushman system for weekly slitting and, of course, this is much faster although I have fitted Huxleys' larger tines with a small modification to the slitter.

I have also retained the old Autocrat as it is still going strong and does all my hollow coring.

As my greens are of a peaty nature and lacking in sand, hollow coring is essential to get the sand down into the greens. After the coring, I take the outfield over the green in the opposite direction, sand is applied, brushed and drag-matted in so that all holes and slitting have the sand worked in.

I would add that this is a fairly new course and sanding is carefully carried out to avoid the possibility of excess sand causing root break.

John Young, Barnham Broom.

A Cushman Goes Cruising...

I recently saw a Cushman in unusual circumstances while touring golf courses on the east coast of America!

I had only stepped off the plane in New York for a few hours and then came my first encounter with a Cushman.

Apparently, the New York Police Department uses them to dodge about in the traffic on the city's busy streets.

Keith Ellis, Assistant Head Greenkeeper, West Essex Golf Club.



Triplex versus hand mowers...

GOLF is very much a psychological exercise at the easiest of times and when so much can depend on a single putt, it is not surprising that a missed putt is blamed on the state of the green-and rarely on the green having been mis-read. With every effort strained to produce superlatively fast, fine-textured putting surfaces, correct "reading" is far more significant on greens prepared for championships than on more day to day occasions, and in consequence we hear a great deal more about such obscure factors as nap. I have been looking at golf greens in one capacity or another for nearly 35 years and I have seen real nap on British greens only a handful of times, though I fully accept that with other grasses as in South Africa, nap is a serious potential problem.

Yet every year we are informed that the use of triplex mowers will alter the putting characteristics of greens, by the effect of the alternate broad swaths, compared with the narrower stripes with hand machines.

There must still be many who can remember the same argument being used against Overgreens—the first "triplex" introduced by Ransomes in 1937. Although they ceased to make it in 1963, some clubs still employ Overgreens to cut their greens.

For the benefit of younger generations, the Overgreen was basically a twowheeled, long-handled tractor unit, towing three hand Certes machines, without their handles of course. Since the machines could not be lifted automatically, the Overgreen had to be turned on the putting surface and this demanded great skill, merely "coasting" on the turn, if the greens ends were not to be scalped. Greens had to be cut one half in one direction and the other in the reverse, leaving a characteristic "black and white" effect as the light reflected on the blades lying away from or towards the line of sight.

There were loud cries about the effect on putting, which could be demonstrably disproved by automatic putting machines, but undoubtedly the alternate stripes of conventional mowing were and still are regarded as more attractive.

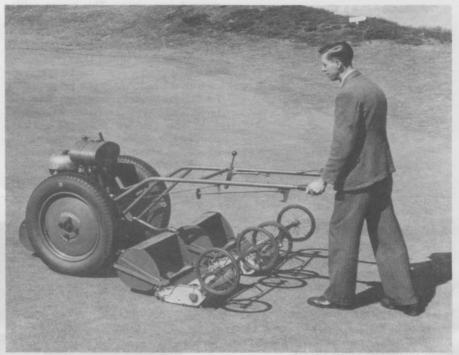
The triplex mower as such was not introduced into this country from America until the very early 1970's. The motive quite wrong—was to save labour. Early triplex mowers were recommended on the basis that since one man could mow eighteen greens where three men with "hand" machines were previously required, the services of two men could be dispensed with to pay for the machine. The fallacy of this is self evident—machines save time not men on a golf course—and was succinctly exposed by an old Scottish greenkeeper friend at a demonstration seven or eight years ago when he asked "does yon



By Jim Arthur

machine build tees in the winter, too?"

Of course everyone can get in on the triplex mowing act without knowing anything of the technical aspects, nor apparently anything about mowers either. This perennial correspondence was enlightened in November by the editorial in one golfing paper observing that there were signs of greens once again being cut "with old fashioned type mowers—by that we mean non-power operated ones..." I will, I am sure be at once corrected if I am wrong, but I cannot see any greenkeeping staff being prepared to mow 18 greens with hand Certes-especially five or six times a week as is essential today. The article in question was illustrated with an Overgreen as an example of a triplex mower. One wonders where the writer has



The introduction of Ransomes Overgreen allowed one man to cut 18 greens in a day. For transport, the front mower was raised out of work mechanically and the two rear machines were lifted on to their carriages.

been hibernating for the last twenty years!

Despite all the well publicised critical comments about mowing greens with triplex mowers, i.e. purpose designed power units, on which three cutting units are mounted so that they can be raised at the end of each cut to facilitate turning off the putting surface we must face up to the fact that triplex mowers are here to stay. Only those clubs still blessed with ample staff can afford to mow solely with, say, Auto-Certes or Palladins, powered hand machines. I remember well a salesman trying to sell a triplex to one famous links which then had nine greenkeeping staff, saying "With this machine you can cut all your greens in three hours". The reply was devastating. "Very interesting-at present it takes me an hour"-which with six men and six hand machines is relatively easy!

Certainly many head greenkeepers are cutting periodically with "hand mowers", but on busy courses, and with more and more clubs demanding greens mown on Saturday and even Sunday as well, the only way to get round without bringing in all the staff is to use a triplex—starting often at 5am. In passing, my wrath is often directed at unwise golfers who criticise greenkeeping staff, who start work long before their critics are out of their beds and whose avowed aim is not to be seen by members, as this would imply that they could interfere with the members' enjoyment.

I had one case where early rising members cutting in to get ahead of play moaned because the greens were being mown ahead of them. Instead of giving the greenkeeper priority and so enabling him to complete his greens, they demanded to be allowed to play through and the greenkeeper took as long to mow the last four greens as the previous fourteen, as play had by then caught up with him.

Another reason why triplex mowers are here to stay is that without one it is impos-

sible to carry out the weekly verticutting right through the growing season, which is such an essential operation in producing really fast greens. Many clubs in fact have a standard routine on Mondays—deep slit with Hydromain or Cushman; verticut and then mow with the second triplex, in one continuous sequence. Even well staffed clubs where the greens are always mown by hand use a triplex for verticutting only.

However, it is readily accepted by all experienced greenkeepers that even with specially ground down sole plates, no triplex can cut as close as a "hand" mower, and furthermore the bigger machine gives no latitude for personal discrimination, as is possible by "easing" hand mowers over slight ridges or weak areas.

Money

It all depends on men-and so in turn on money. Those who applaud the condition of top courses in the States and criticise British greenkeeping for not maintaining such immaculate conditions. with wall-to-wall mowing, fertilising and irrigation, fail first to understand how much it costs and secondly to accept that it is questionable whether we would wish to have such over-prepared conditions, even if we could afford it. Some American courses have one Cushman and three greenkeeping staff per hole! Most of our courses are looked after by less than the minimum level of a skilled head greenkeeper and four trained staff per 18 holes-which is acceptable only if backed up by full mechanisation-and this certainly includes two triplex mowers, the older one retained for verticutting and as a back-up machine.

Criticism of the speed of putting surfaces should not be aimed solely at triplex mowers. Some of the Open Championship links are cut regularly—almost all periodically—with triplex mowers. Complaints about slow speed were due to other errors and factors, e.g. height of cut and not to triplex mowing. Royal Lytham and St Annes' greens are superb fine fescue/ Agrostis greens, with little annual meadow grass. They are always cut with a triplex—and with no complaints.

Speed in any case is more affected by the grass species, and the fineness of texture which results-aided by verticutting and by the frequency rather than closeness of cut. On the subject of frequency, do the critics of triplex mowers stop to think of the hard working greens staff on a course hosting, say the Open Championship, who go out with a cavalcade of machines and men barely an hour behind the last round of the day, to re-prepare the whole course, including cutting greens twice-in two directions-and then are out again next morning in the small hours to give a final cut before play starts. Nap-my foot!!!

If the attractive alternate striping from conventional mowing is demanded then the money must be found for more menand machines. Do our professionals realise how little change out of £1000 you get for a 20" hand (power) mower today? Of course all concerned would agree that greens "conventionally" mown look nice-but do they really putt better? The practice of mowing with triplex on the evening cut and then finishing with hand machines early each morning in Championships cannot possibly influence 'nap"-it is all in the eye because virtually nothing comes off in the box and all we do is put stripes on the green. Of course, on wet greens, triplex mowers can sink in and cut too close, leaving unsightly "scars", but this is scalping, not nap, and it certainly does affect putting.

The arguments will, I have no doubt, continue—but in my view desirable as hand mowing is, the crux is can we afford it?



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John Campbell's Country



John visits Nickerson Turfmaster.

IT'S NOT easy to enter into the grasscutting market at a time when the leisure industry is being hit by the recession. But a company now beginning to make an impact on the sports and recreation scene is Nickerson Turfmaster, which is rapidly acquiring a reputation as one of Britain's leading manufacturers of grass-cutting equipment.

In September 1980, this company moved from Essex into impressive new manufacturing premises in Gainsborough, Lincolnshire to continue the expansion of its business.

With its wide range of British engineered equipment to satisfy all the needs of the professional groundsman and greenkeeper, Nickerson is confidently facing the future with optimism. Matt Templeton, the company's managing director, predicts that design, performance, price competitiveness, nationwide service and absolute reliability are the company's key to success.

Although the products are well advanced, the engineering principle that simplicity means efficiency has been adhered to. This helps to keep the cost of repairs to an absolute minimum and ensures that ease of operation is combined with good accessibility, allowing maintenance to be carried out on site, quickly and efficiently by the operator.

All these factors have a bearing on the final choice of machinery nowadays and this gives the Nickerson range a special appeal.

Quality control plays an important part in every stage of manufacture and there are rigorous checks on every piece of machinery before it leaves the factory for any of the company's more than 40 distributors. The distributors also subject the machines to a rigid routine inspection and ask customers to make their final examination before accepting delivery.

Every greenkeeper knows from experience that one of the most critical parts of a mower is the cylinder reel and Nickerson has concentrated its efforts in the design of precision-built cutting blades, which are capable of withstanding tough treatment in all kinds of situations.

Visitors to the factory are usually invited to subject them to the sledgehammer test when they find that, however hard they may strike the blades, the hammer only bounces off like a rubber ball.

The largest and most revolutionary machine in the Nickerson range is the Turfmaster 2001 and it is available in both rotary and multi-cylinder versions. As a rotary, this machine is quite capable of dealing with up to 30 acres a day and it will take anything from short meadow grass to tall dense scrub in its stride.

The machine is powered by a Ford 1098cc low compression petrol engine and, with its fully floating rotary deck, it has a cutting width of six feet and a cutting height that can be set from $1\frac{1}{2}$ to $6\frac{1}{2}$ inches.

Under moderate conditions, the cylinder version of the 2001 can cut up to 50 acres a day on one tank of fuel—worth considering in these days of economy.

There is a choice of three or five bladed cylinders. The three bladed cylinder copes with grass up to 12 inches high. A fine close finish on grass up to eight inches high is achieved with the five bladed cylinder.

A good feature is the automatic cut out on the hydraulically driven cylinders if they hit any solid objects. The cylinder attachment has also been designed in such a way that it is possible to switch from the standard rotary deck to the new cylinder deck in less than 15 minutes.

This machine's stability on awkward slopes is a feature that will interest many greenkeepers. The 2001's low centre of gravity does inspire confidence in the operator with the knowledge that he can negotiate steep banks up to 35 degrees.

With its off-set cutting units, it can easily manoeuvre in tight situations and cut under overhanging branches, shrubs, seats, etc, thereby reducing laborious hand trimming.

Unique

Apart from its dramatic aerodynamic shape, the 2001 incorporates a unique hydraulic system in its tubular chassis, which not only provides smooth transmission control and positive braking, but can also be used to power other hydraulic equipment, such as pumps, chain saws and pruners.

Power hydrostatic steering to rear wheels provides a tight turning circle with excellent manoeuvrability. *Greenkeeper's* advertising manager Kay Moss gave an admirable demonstration of the simplicity and handling of the 2001.

Knowing how upset golfers can get with noisy engines, greenkeepers will strongly favour the smooth running of the powerful engine, which is equipped with fully hydrostatic transmission, eliminating clutches, universal joints and gears. A single self-centring rocker pedal controls forward and reverse speeds and braking. All controls can be comfortably operated from a relaxed position in the driving seat.

John Campbell's Country

An all-weather cab is available as an optional extra and this has been specially designed with a low profile to ensure it does not interfere with the machine's working stability. The new cab has a steel frame and affords good all-round visibility. Tinted toughened glass helps reduce summer glare and heat build-up.

Other features are two removable doors, a manually operated roof vent, windscreen wiper and the use of sound deadening material. The cab only takes about 15 minutes to fit.

The most popular machine in the Nickerson stable is the Turfmaster 84. It is the only British machine capable of traverse cutting up to 35 degree slopes, which makes it ideal for sharp banks.

There is no scalping of turf on undulating ground, for this machine is fitted with three fully floating mowing cylinders, which allow it to glide over the ground smoothly and efficiently. The machine offers flexibility of cutting widths for all kinds of situations, from 30 inches to seven feet, as each of the three units can be raised and disengaged independently of the others.

Mowing cylinders are available in three, five and seven bladed versions and, in accordance with the Nickerson tradition, these are all manufactured in tough, highly tempered steel to give them a precision cutting edge capable of dealing with the thickest growth of grass.

Superb

The seven bladed cylinder gives nearly 80 cuts per yard for a superb fine finish on tees, aprons and green surrounds; the five bladed cylinder gives 54 cuts per yard for a superior finish on grass up to eight inches high; while the three bladed cylinder gives 33 cuts per yard and will deal with grass up to a foot high. All cylinders are easily changeable in only 30 minutes.

Ease of operation and simple maintenance are features built into the 84 by its excellent design and most repairs can be carried out by unskilled labour. The machine is available with the choice of a petrol, diesel, or propane gas engine. It has many refinements for operator comfort and convenience, which include a fully adjustable suspension seat and carefully designed controls for ease of operation from the driving position.

Optional extras include a cab and a full range of maintenance equipment, such as aerators, rakes, rollers and sweepers.

The Turfmaster 1400 is another good machine in the Nickerson range for golf courses and other sports areas where large



Greenkeeper's Kay Moss handles the 2001 with ease.

or awkwardly shaped tracts of grass have to be cut regularly and quickly at minimum cost. The machine also operates on slopes up to 30 degrees.

It has fully floating cylinders and can deal with up to three acres in an hour in wet or dry conditions. It is also available in three, five or seven blade versions and the cylinders can be changed to cut from 12 inches high down to three-eighths of an inch.

Maintenance costs are kept to a minimum by the use of sealed bearings, automatic tensioners on drive belts and chains and easy access to all components for quick servicing.

Another long-established machine produced by Nickerson is the Turfmaster 70, which is able to cut up to two acres of grass per hour at speeds of up to five mph—in wet or dry conditions. The three independent mowing cylinders provide varying cutting widths of up to 70 inches.

Two cylinder versions are available five blades gives a superior finish on grass up to six inches high, or seven blades for a fine finish on regularly mown areas.

This machine is highly manoeuvrable and capable of negotiating obstructions and any awkward situations with ease and dexterity. Its low centre of gravity and rear-mounted mowing cylinders allow it to cling like a limpet on steep banks with complete safety. Thatch is a bugbear on many golf courses and the Nickerson Turfmaster Powerake has been uniquely designed to cope with this problem. It is available in either 16 or 20 inch wide models and its scarifying action helps to improve the vigour of the turf by removing dead material, creeping weeds and prostrate grasses.

The revolving tines act like a comb on the turf by removing thatch to allow better penetration of air, moisture and fertiliser to the roots.

The tines are made of hardened steel and the fact that they are reversible gives them double the life of ordinary power rakes. Powered by a three hp engine, the machine is easy to control and light to operate.

Nickerson Turfmaster also makes a range of sweepers to meet a great variety of needs. This British-built range, with 25 inch to over four foot sweeping widths, is ideal for keeping all turfgrass areas and hard surfaces clean and tidy. They are capable of picking up anything from pine needles to beer cans.

In spite of an increasing level of competition, in the UK and overseas, Nickerson has continued with its expansion in the market-place and an extensive network of distributors covering the UK has assured a good supporting service for spares and repairs.

Par for any course! BP Zennapron CDA Turf Herbicide.



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The considerable reduction in volume required per acre means you carry less and spray more. For further details of Zennapron and the Micron Herbi Sprayer system please contact: CDA Chemicals Ltd, 16 Vine Street, Billingborough, Nr. Sleaford, Lincs. Tel: 0529 240456 (24 hour answering service).

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Trade News

You're A Star!

In 1981, Huxleys was Royer's top-selling distributor for sales of environmental products. And in recognition of this effort, Ted Huxley has become a star...

Royer went to the International Star Registry and arranged to have an actual star named The Ted Huxley Star and registered in Ted's name. He will receive an embossed certificate and two charts, pinpointing the location of his star in the universe. This will be permanently registered in the registry's vault.

With publication in 1983 of a hardcover astronomy book Your Place in the Cosmos, by Dr T. Harry Leith, the name will be forever catalogued and registered at the US Library of Congress.

Huxleys began to sell Royer Shredder-Mixers and Powerscreens some three years ago.

The Model 112 Shredder-Mixer is a manually loaded machine that can process up to 12 cubic yards of peat, compost, leaf-mould or soil an hour.

Every Shredder-Mixer features the original Royer high-speed cleated belt mechanism, giving a four-step shredding, mixing, aerating and cleaning action. The larger mechanically loaded shredders will process up to 140 cubic yards per hour.

One of the largest Royer 365 hydraulically driven Shredder-Mixers is used by Patersons of Greenoakhill, Glasgow—a sand and gravel company that processes and sells screened top-soil and peat.

Royer machines have also proved ideal for John Innes Manufacturers and Roffey



Over 200 Royer Soil Shredders and Powerscreens have been sold to golf courses, local authorities, nurseries and topsoil companies. Users include St Andrews, Gleneagles, Wentworth and Sunningdale.

Bros of Bournemouth use a tractorloaded Model 182, driven by a threephase electric motor.

Golf courses making their own topdressing compost often use a Royer Powerscreen fed direct from a Shredder-Mixer to produce a super-fine material.

In addition to the standard petrol engines, Huxleys offers a range of alternative power units for most of the Royer machines, including single or three-phase electric motors and diesel engines.

Greenkeepers Still Want Solid Tines

Huxleys, agents for Cushman and other course machinery, recently held two meetings—one at Wentworth, the other at Meon Valley. The second was organised jointly with the Roffey brothers, who have for many years run their own course advisory and service agency in the south. A question and answer session was held with a panel consisting of Jack Roffey, Brian Pierson and Huxleys' machinery expert at its Alfreston depot, Eddie Fox.

Huxleys has found such a demand from head greenkeepers for a deep-piercing simple solid-tine attachment for the Cushman that the company is now devising and marketing one for it.

The current trend seems to be for slit tining in preference to solid tining—on the theory that slit tining lets in more air and also that solid tining can compact the lining of each hole it makes, thus lessening practical aerating effect.

Nevertheless, sufficient numbers still think it wise to include solid tining in their programmes for Huxleys to find a demand worth meeting.

The obvious advantage about solid tining is that it does not disturb the putting surface so much as slit tining and does not leave wide open slits in the greens during early season dry periods or when watering has to be kept down for any reason and therefore considerably affects the putting surfaces less at the time.



Thorpe Hall Golf Club, near Southend, Essex recently took delivery of a Cushman Front Line Rotary. The club's secretary and head greenkeeper are shown receiving the machine from Clive Lockwood of Bartram Mowers, Norwich.

Buyers' Guide

ARTIFICIAL GRASS

Greensward Company, The Old Hall, Langham, Oakham, Rutland, Leicester. LE15 7JE Tel: (0572) 2923. Contact S. C. Abel-Smith

BARK & BARK BASED PRODUCTS Camland Products Ltd., 36 Regent Street, Cambridge, CB2 1DB Tel: (0223) 68780 Telex: 81254

BRITISH ASSOCIATION OF GOLF COURSE ARCHITECTS Cotton (CK), Pennick, Lawrie & Partners Ltd., Marlow Place, Station Road, Marlow, Bucks, SL7 1NB. Tel: Marlow 72555 Telex: 31121.

Hawtree & Son, 5, Oxford Street Woodstock, Oxford, OX7 1TQ. Tel: Woodstock (0993) 811976

Hamilton Stutt & Co., 12, Bingham Avenue, Poole, Dorset, BH14 8NE. Tel: (0202) 708406. Contact: J. Hamilton Stutt.

T. J. A. McAuley BSc FICE, 7, Donegal Square West, Belfast, N. Ireland, BT1 6JF. Tel: (0232) 26981.

BRITISH ASSOCIATION OF GOLF COURSE CONSTRUCTORS Golf Landscapes Ltd., Ashwells Road Bentley, Brentwood, Essex, CM15 9SR. Tel: 0277 73720

Land Unit Construction Ltd., Folly Farm, Hanslope, Milton Keynes, Bucks. MK19 7BX. Tel: 0908 510414

Brian D. Pierson (Contractors) Ltd., 27, Vicarage Road, Verwood, Wimbou Dorset, BH21 6DR. Tel: 0202 822372.

Southern Golf & Landscapes Ltd., 85, West Street, Warwick, Tel: 0926 492898.

Chipman Ltd., Horsham, Sussex, RH12 2NR Tel: 0403 60341

CONSTRUCTION

Charles Lambert (Lawns) Ltd., Dudley Court, Cramlington, Northumberland. Tel: Cramlington 714121 Contact: D. M. I. Emmerson

DESIGN, PLAY & WEAR CONTROL John Stobbs, 121/123 High Street, Dovercourt, Harwich, Essex, Tel: 02555 7526.

DRAINAGE

Lamflex P.V.C. corrugated coiled drainage pipe. Critchley Bros. Ltd., Brimscombe, Stroud Glos Tel: 045 3882451

FERTILISERS & TOP DRESSINGS Cannock Fertilisers, Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel: (0733) 68384

Supaturf Products Ltd., Oxney Road Peterborough, PE1 5YZ, Tel: (0733) 68384 Contact: F. Binder

C. H. Binder Ltd., Moreton, Ongar. Essex, CM5 OHY, Tel: (027 783) 246 & 320. Contact: F. Binder

A. W. Maskell & Sons Ltd., Stephenson Street, London, E16 4SA. Tel: 01-476-6321

GOLF COURSE ACCESSORIES

Bridges Pennants, 68, Southchurch Avenue, Southend-on-Sea, Essex SS1 2RR. Tel: 0702 612344 Contact: Mr. Elvin.

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ, Tel: (0733) 68384.

H. Pattisson & Co. Ltd., Stanmore Hill Works, Stanmore, Middlesex, HA7 3HD. Tel: 01-954 4171 Contact: Peter Dell

GOLF COURSE AND BOWLING GREEN CONSULTANT John Campbell, 121/123 High Street, Dovercourt, Harwich, Essex. Tel: 02555 7526

GOLF COURSE CONSTRUCTION J. S. Bishop & Co. Ltd., Bishop House, Bath Road, Taplow Maidenhead, Berks, SL6 ONY.

GOLF COURSE CONSULTANTS John Souter Esq., Cunningham Road, Stirling, Scotland. Tel: Stirling 2141.

GRASS CUTTING EQUIPMENT Ransomes, Sims & Jefferies PLC., Nacton Works, Nacton Road, Inswich Suffolk, IP3 90G. Tel: (0473) 712222 Contact: J. F. R. Wilson/T. J. Knight

GRASS MAINTENANCE EQUIPMENT Turners of Wheatley Ltd., 64, Londo Road, Wheatley, Oxfordshire, OX9 1YB. Tel: 08677-2349

Professional Grass Machinery Ltd., Unit 5, Oaklands Industrial Estate, Cannock, Staffordshire, Tel: 05438 77866. Contact: Vicky Stevens

GRASS SEED

Gerson Grass Seed, Grove Lane, Smethwick, Warley, West Midlands, B66 2SE. Tel: 021-558 3551. Contact: Frank Gerson

Mommersteeg International, Station Road, Findon, Wellingborough, Northamptonshire. Tel: Wellingborough (0933) 680674. Contact: Michael Perkins

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ, Tel: Peterborough (0733) 68384.

Suttons Seeds Ltd., Hele Road, Torquay, Devon, TQ2 7QJ. Tel: (0803) 62011. Contact: R. W. Palin.

Hurst Gunson Cooper Taber Ltd., Avenue Road, Witham, Essex CM8 2DX. Tel: Witham (0376) 516600. Contact: Mr. K. Potter or Mr. C. Martin

Carters Tested Seeds, Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ. Tel:(0733) 68384.

GREEN/TEE CONSTRUCTION J. S. Bishop & Co. Ltd., Bishop House. Bath Road, Taplow, Maidenhead, Berks, SLE ONY

IRRIGATION

Perrot Irrigation Ltd., 38, High Street Rowhedge, Colchester, Essex, CO5 7ET, Tel: Colchester (0206) 867624.

Sports Ground Irrigation, "Hereward Lodge", Paget Road, Lubenham, Market Harborough, Leics, Tel: 0858 63153

Toro Irrigation Limited Unit 7. Millstream Trading Estate, Ringwood, Hampshire BH24 3SD Tel: Ringwood 6261.

Watermation Ltd., Monument Way E., Woking Surrey, GU21 5LY. Tel: Woking 70303 Telex: 859224

LANDSCAPE CONTRACTORS J. S Bishop & Co Ltd., Bishop House,

Bath Road, Taplow, Maidenhead, Berks SL6 ONY

LITTER BINS

Green Brothers (Geebro) Ltd., (Lister Teak Products) Summerheath Road, Hailsham, East Sussex, BN27 3DT Tel: (0323) 840771 Telex: 87676

LIQUID ORGANIC FERTILISER Farmura Ltd., Stone Hill, Egerton, Nr. Ashford, Kent. Tel: Egerton (023376) 241

MOWERS

Brouwer P.T.O. Gang Mowers, (U.K. Concessionaires), Watmore's Turfland, Redhouse Farm, Preston Brook, Warrington, Cheshire. Tel: Aston (Runcorn) 09286 336.

Morrison Precision Lawnmowers 16, Byward Street, London, EC3R 5BQ Tel: 01-481 4851 Telex: 885476. Contact: Tim Chapman,

MOWERS - ROTARY

Lawnboy Farm Services Ltd., Railway Road, Downham Market, Norfolk, Main agents for Lawnboy Rotary Mowers. Contact: Nick Brett

PLAQUES AND NAMEPLATES

Thos. A. Ingram & Co. Ltd., P.O. Box 305, Birmingham, B19 1BB. Tel: 021 554 4576. (brochure available)

POP-UP SPRINKLER SYSTEMS

RIS Cameron Irrigation Systems Ltd., Harwood Industrial Estate, Littlehampton, West Sussex, BN17 7BA, Tel: 09064 3985 Contact: Sports Division

RANSOMES DISTRIBUTORS Henton & Chattell Ltd., London Road. Nottingham, Tel: Nottingham 862161 Contact: Christopher Bryden

W. Mountain & Son Ltd., Jackson Lane Works, Bank Avenue, Morley, Leeds, LS27 9JE. Tel: Morley (0532) 531201 Telex: 557067 Contact: A C Mountain

Wilcocks, Walker Street, Preston, Lancs.

Tel: Preston 53068

SEATS Green Brothers (Geebro) Ltd., (Lister Teak Products), Summerheath Road, Hailer East Sussex, BN27 3DT. Tel: (0323) 840771 Telex: 87676.

SEAWEED FERTILISERS Seamac Agricultural Ltd., Foundry Lane, Chippenham, Wilts.

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

SEMI-MATURE TREE PLANTING Eastcote Nurseries (Solihull) Ltd.,

Wood Lane, Barston, Solihull, West Midlands, B92 OJL. Tel: 06755 2033/4. Contact: Stephen or Michael Fisher.

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

Alginure Products Ltd., Leyswood House, Groombridge, Tunbridge Wells, Kent. Tel Groombridge (089276) 782. Contact: Bill Visser or Ben Simpson

SPRAYING EQUIPMENT

Evers & Wall Ltd., Hardi Division, St. George's Way, Bermuda Industrial Estate, Nunecton, CV10 7QT. Tel: Bondgate 020364 2054 Telex: 312426. Contact: Mr. W. Hayward.

TEE MATS

(Synthetic Grass Backed Rubber) The Charles Lawrence Group Ltd., 153a Farndon Road, Newark, NG24 4SP Tel: 0636 76218.

(Heavy Duty) Clan Marketing Company, Milton House, Loddington, Kettering, Northants NN14 1JZ Tel: 0536 710328

TOP SOIL

Havering Landscape Supply Co Ltd., Havering House, Thornwood Common, Epping, Essex, CM16 6LT. Tel: Epping 76161 Contact: P. J. Furner.

TRACTORS

Lely Iseki Tractors. Crosshall Works, Gt. North Road, Eaton Ford, St. Neots, Huntingdon, Cambs. Tel: 0480 76971 Telex: 32523 Contact: C. Gregory.

TREES & SHRUBS

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

Nottcutts Nurseries Ltd., Woodbridge, Suffolk, IP12 4AF. Tel: 03943 3344.

TREES TIES & TREE GUARDS

Green Brothers (Geebro) Ltd., (Rainbow Products), Summerheath Road, Hailsham, East Sussex, BN27 3DT. Tel: (0323) 840771 Telex: 87676.

TRENCHING MACHINES

A. F. Trenchers Ltd., Gosbecks Road, Colchester, Essex, CO2 9JS. Tel: 0206 44411 Contact: W. D. Baker.

TURE Rolawn (Turf Growers) Ltd., Elvington. York, YO4 5AA. Tel: (0904) 85406.

Watmore's Turfland, (Purpose Grown). Redhouse Farm, Preston Brook, Warrington, Cheshire, Tel: Aston (Runcorn) 09286 336.

TURF CARE PRODUCTS John K. King & Sons Ltd.. Coggeshall, Colchester, Essex. Tel: 0376 61543. Contact: Mary Ann Hanik.

TURF DRESSING COMPOST E. A. Goundrey & Son Ltd., The Nurseries, Duns Tew, Oxford, OX5 4JR. Tel: (0869) 40224

TURF DRESSING & FERTILISER

Suttons Seeds Ltd., Hele Road, Torquay, Devon, TQ2 7QJ, Tel: (0803) 62011 Contact: R. W. Palin.

TURFACE SOIL AMENDMENT

Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ, Tel: (0733) 68384.

TURF (SPECIALITY)

Watmore's Turfland (Purpose Grown), Redhouse Farm, Preston Brook, Warrington, Cheshire, Tel: Aston (Runcorn) 336.

Miline Elan (Liquid Storage)

Danesfield Drive, Leominster, Herefords, HR6 8HP, Tel: 0568 3697. Contact: M. D. Cockett.

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Trade News

Turner Turn-Up

An improved range of tractor-mounted, in-line flail mowers is to be introduced by Turner International Engineering. The Turbomowers have been upgraded to heavy-duty standard.

The new Turbo's, mounted on the three-point linkage and powered by the tractor's PTO, now have floating links to enable them to oscillate independently of tractor movement on uneven ground.

Final drive belts are now self-tensioning, eliminating the need for periodic adjustment and the front guards are nearer the ground.

A new cowl shape widens the gap between the rotating flail tips and the top, improving the backward flow of cut material and reducing the power requirement.

Turner offers the new Turbomower in cutting widths of 40, 50, 64, 72 and 84 inches. Each mower has the Turner rotor shaft with free-swinging cutting flails and with the extra advantage of being offset to the sides of the tractor by eight inches right and left.

Full details from: Turner International, The Mill, King's Coughton, Alcester B49 5QG. Tel: Alcester 763711.

Autoturfcare Moves North

Autoturfcare, sole UK distributors of Toro and Gravely turf and lawn care products, has moved its head office and marketing administration from Guildford, Surrey to its long-established distribution facility in Darlington, Co Durham.

Now the full Autoturfcare organisation—financial, distribution and marketing for both the commercial and garden products divisions—is under the one purpose-built roof in Darlington.

Coinciding with the move, company management responsibility has been restructured. Bert Jennings and John Murfin have become joint managing directors.

Bert Jennings has acquired one of the most important Autoturfcare dealerships, Turf Machinery (London) Ltd, which will trade as a privately owned company. This will enable him to maintain his contacts in the south of England. He will also retain his shareholding in Autoturfcare's parent company.

NEXT year's Institute of Groundsmanship annual conference will be held at the University of Dundee, Angus, Scotland, from April 4th to the 6th.

For further information, contact Richard Frost on 01-352 8384.

Johnsons Seeds To Market Merlin Red Fescue

An agreement has been reached between NSDO and W.W. Johnson for the exclusive market development of Merlin slender creeping red fescue.

Merlin was developed as part of a breeding programme carried out by Professor A.D. Bradshaw of the University of Liverpool for the selection of grasses suitable for use in the reclamation of land contaminated with the toxic metals copper, lead and zinc.

Merlin can be established on mine tailings or residues from smelting processes containing up to 1 per cent lead and 1 per cent zinc. It also has some tolerance to copper.

Merlin has a number of valuable characteristics in addition to its tolerance of the three heavy metals. These extend the role of Merlin beyond those involving the establishment of grassland on difficult sites or under hostile conditions.

Merlin has performed well as an amenity grass in trials conducted by the Sports Turf Research Institute, showing wear resistance, high sward density and good colour. Merlin requires less frequent mowing than other red fescues and, like a chewings fescue, persists under close mowing systems.

Other tests have shown Merlin to be outstandingly drought tolerant and able to persist well under low nutrient conditions and over a wide range of pH values.

Further information about Merlin and the availability of seed from W.W. Johnson & Son Ltd, Boston, Lincs.

Weed Control— A New Approach

A remarkable sprayer is taking on the task of controlling weeds in amenity areas.

Called the Micron Herbi, it is a lightweight, hand-held, battery-driven machine that allows an operator to spray up to one acre in an hour. It only uses between five and ten per cent of the volume and weight of a traditional sprayer.

Droplet formation of the spray is controlled by the use of specially formulated chemicals developed by BP Oil. These are based on an oil and water emulsion, which not only makes the chemicals rain fast, but minimises evaporation and wind drift.

The principal benefits of this system, called Controlled Droplet Application (CDA), are: no mixing of chemicals, thereby eliminating potential errors; as dilution is unnecessary, the load carried is dramatically reduced and the need for frequent trips to a water source is eliminated; no calibration of equipment is needed; one full load containing half a gallon, weighing 11lb, can treat the same area that would require five full four gallon knapsacks, a work load of approximately 220lb; operator fatigue is reduced and safety levels improved.

One acre can be sprayed in an hour with a single unit.

This system is marketed on behalf of BP Oil by: CDA Chemicals Ltd, 16 Vine Street, Billingborough, Sleaford, Lincs. Tel: 05294 456 (24-hour answering service). CDA Chemicals has a distribution network covering most of the country. Demonstrations and training of operators is free.



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