

which methods work best and where. The qualified agronomist has the depth of scientific knowledge to relate to the large variety of sites and the extra advantage that he is seeing the whole range all the time.

Apart from the differing requirements of different sites, the experience of seeing so many courses develops an awareness of differing levels of play and leads to further variations of the advice given. It all seems a far cry from the old Bingley reports of twenty years ago which seemed to be the same for all courses.

### **pertinent**

Jeff made another pertinent point: "It is really very sad that most of today's problems are self-inflicted. In spite of better education and awareness in golf, the mistakes made stem usually from club authorities, much more rarely from the greenkeeper. It is not possible to condemn the man with 100% *Poa annua* greens when you know that the main contributory factor is the pressure from members to mow too closely. That does not alter the fact that *Poa annua* must always be a most unstable system for golf courses."

That took us on to the question of grass populations and agreement that the ideal surface for golf would be pure fescue, but, on the average golf course site, if you can achieve more than 60% *agrostis*, spread evenly through the green, you are doing very well indeed. Both men had further thoughts on fescues. David thought that "the chief site for this grass on greens is on limestone heaths and links, which are both free-draining and with a high pH. It is rare to find it on the more acid sites."

Jeff said: "I have a wish regarding fescue turf which stems from two new courses I advise, both on the Continent. Both have a free-draining construction geared to the encouragement of fescue and both were sown to pure fescue (in fact a 50:50 mix of Slender red and Chewings). The chemical Methabenzthiazuron was used to keep out *Poa annua* (it discourages *Agrostis* as well). I wish

## **"Club politics are absolutely disastrous as far as golf courses are concerned"**

somebody would have a bash at that in Britain but nowadays there would be some difficulties with pesticide legislation."

I seem to remember that the early work with this chemical was done at Bingley in the Seventies with a view to control of *Poa annua*, but it was felt that golfers preferred a mixture of *Agrostis/Festuca*. It has to be stressed that this system could only be successful if the underlying drainage and construction is good."

Of course, this again illustrates the point made by many greenkeepers that many problems in this country are the result of old-fashioned design and construction not geared to the modern all-year-round demand for play. Unhappily, some new constructions in recent years have not proved to be any improvement.

### **feasibility study**

Increasingly the golf unit receives enquiries about the feasibility of new golf course sites. ("It is nice if we are asked in BEFORE a disaster is built"). Unfortunately the feasibility study is often the end of the STRI involvement.

An architect is appointed, draws up plans and says he will supervise the construction himself. David remarked: "That is not always the ideal way to produce a guaranteed end product. New designs must be manageable and fit the site conditions, as well as having architectural merit, and both aspects must be given equal attention in order to produce the best end result".

Jeff had some more general points to make about problems, starting with the commonest one, that far too frequently committees with nil expertise insist that they know best. "But

I sometimes think that a greenkeeper is his own worst enemy. A good greenkeeper has four main attributes, not only good theoretical knowledge and good practical skills, but nowadays he will also need good management skills and, especially, good skills in communication. It is on these last two points that many fall down. They know how to manage their course inside-out, but do not possess sufficient skill in managing and motivating their staff, or good enough abilities in organisation, budgeting and, above all, in communication. They must THEMSELVES create a climate in the club where all members automatically think of the head greenkeeper as the number one person to consult about the course."

### **crisis to crisis**

Jeff continued: "David and I both have experience of good greenkeepers who, if left alone, could manage their courses to a high standard, but they fail to communicate adequately with both committees and members, are interfered with, become discouraged and disillusioned and simply settle for doing as they are told. From then on it is a progression from crisis to crisis."

David felt even more strongly: "Club politics are absolutely disastrous as far as golf courses are concerned! The question is what to do, for those politics will not just go away. In fact they are getting worse. Nowadays there can even be a crisis about not strimming round the tee markers!"

As you may have gathered I enjoyed my discussion with these knowledgeable and realistic men. The interview was lengthy and deserves a little more space next month!

# **FACE TO FACE**

# GOLF COURSE IMPROVEMENTS IN THE LAST THIRTY YEARS

**A report prepared by the Greenkeeping  
Winter Fact Finding Committee at  
Dundee College of Further Education**

FROM the players' point of view, more and more golfers are looking for 12 months of play on a golf course kept in reasonable condition. More winter golf is being played now than ever before.

It is up to every greenkeeper to strive to give the best possible conditions throughout the year, within the bounds of the budget provided and his own ability.

While there have been many definite improvements in education within the greenkeeping profession in the last 30 years, there is still a need to improve the status of greenkeepers.

In an effort to improve the standard of advice from consultants it has been said that consultants should have degrees in agriculture to be better able to understand turf management. Those present felt that the possession of a National Diploma in Turf (NDT) would be better for the consultants, and indirectly, for their clients.

Golfers themselves need more education in how to use a golf course sensibly. Good golf course etiquette is essential in these days of increased use of courses. The meeting felt that associations such as BIGGA could do much to help put over this message more firmly. This would improve still further the players' attitude to golf.

Thirty years ago mistakes were made in the design of new courses and with alterations to existing courses. Many of the

problems created then still exist today.

Improvements which have occurred or arisen as a result of recognising these mistakes:

- Choosing only land which is suitable for golf in the first place.
- Taking short cuts (eg. building to the lowest price) should no longer, be considered the best policy, automatically.
- Better golf course architects are available.
- Using more land for each course - 150-200 acres instead of 90-100 acres.
- Larger tees, designed with the greenkeeper and maintenance in mind.
- Avoiding narrow walk-off areas between greens and tees which lead to unwanted worn and bare areas.
- Recognising that flat greens and tees are not necessarily desirable.
- Using stronger and more visible bunkering.
- Abandoning clay bowl constructed greens - 'Dew pond greens'.
- Using better drainage techniques and 'know-how'.

It was recognised that golfers play more slowly now, but this may be due in part to congestion on the course. The newest courses to be built are being

designed to be a little shorter than those built in the 60's and 70's when the emphasis was on length. This could help to speed play.

The playing speed of the ball was also considered. Badly used pop-up sprinklers on greens lead to a slower putting surface.

More desirable, faster putting surfaces have been achieved by:

- Encouraging a predominance of fescue and bent in greens.
- Regular verticutting.
- Increased and more careful use of top dressing.
- Producing drier surfaces by regular spiking.
- Cutting more closely and more often when weather conditions allow it.

The suggestion that Annual Meadow Grass (AMG) had now been relegated to the status of a weed and therefore, unwanted, was now widely accepted. However there are still some greenkeepers who feel that its presence as a tough persistent grass can still be tolerated.

Cultural methods have changed over the last 30 years, in fact quite recently, to discourage invasion from AMG on golf greens:

- Fertilisers containing no phosphate are used.
- Overall reduction in the use of fertilisers.
- Regular spiking and

verticutting.

- Use of less water.
- Encouragement of acidic conditions (but not over acidic).

It was pointed out that by using wetting agents before AMG flowers appear, followed by a back-up application 14 days later, there would be a noticeable reduction in flowering heads.

One suggestion was to apply Farmura Green at the general rate of 1 gallon per average sized green, before AMG flowers appear, and 14 days later, apply Aquagro at 2oz/110sq yards.

It is the unsightliness of the AMG flower heads which makes its presence so unwanted. Without the flower heads its presence may still be tolerated over the next thirty years.

In the last five years the problem of thatch has become less pronounced than 20 years

ago. This is probably due to:

- Improved slitting treatments - much higher frequency.
- Better use of irrigation - linked with a better understanding of AMG control - too much water is thought to be the culprit for encouraging both thatch formation and AMG development.
- Use of improved top dressings, containing less peat.

As already stated it was agreed that over-watering is the biggest cause of thatch and AMG. The application of water is still required, but its use should be left to the head greenkeeper's discretion.

In recent years the spread of patterns of sprinklers has been studied more closely, which has led to improved watering systems being introduced.

This has been linked with better systems for measuring the amount of water applied. Used in conjunction with soil tensiometers this should ensure that water is applied only when required and in the right amounts.

Hand watering of high areas, particularly on greens, but also on other parts of the golf course, is still recommended even although standing with an open ended hose is time consuming.

The use of wetting agents has increased in recent years. Their use reduces the amount of water requiring to be applied to get sufficient water to the grass roots.

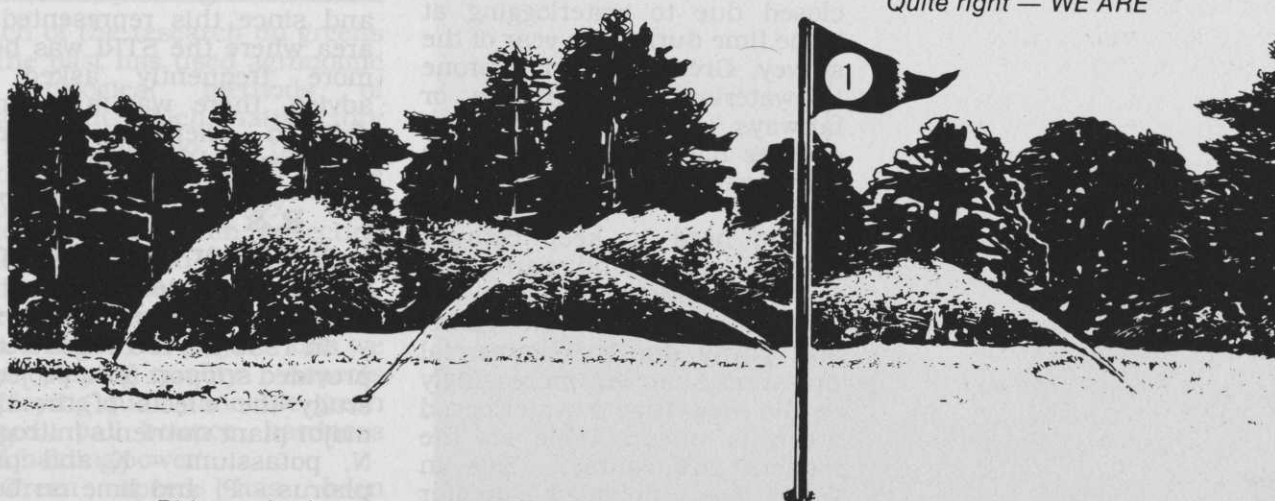
A note of caution was sounded. There is still not enough known about the long term effects on turf and soil organisms of the use of wetting agents.

**If you would like to join the committee, they can be contacted at Dundee College.**

# Watermation

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

*Quite right — WE ARE*



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

*Right again — WE ARE*

No need to look any further, we can provide you with everything you need for your turf irrigation.

Telephone us on Woking (04862) 70303 or 21009 for our catalogue

Watermation Ltd., Monument Way E., Woking, Surrey GU21 5LY. Telex: 859224 FLEXON G. Tel: Woking (04862) 70303/21009 or Stirling (0786) 70252, or Dublin (1) 789501 or Paris (1) 47 06 04 19.

# RESEARCH UPDATE

## The search for the PERFECT green

by  
**P M Canaway**  
of the  
**STRI**

THE game of golf has its origins on the coastal links of Scotland. The original links greens consisted of fine bent and fescue species established on naturally occurring freely drained coastal sand. The game gradually spread inland and golf course architects made use of the indigenous soils available. Some of these were suitable and in some ways similar to the links soils, being of low productivity and to which bents and fescues were well adapted. Others were developed on heavy pasture-type soils more suited to beef production than the production of a golf course.

In this country the most important factor limiting the use of courses is the inability of most naturally occurring soils to transmit water away from the surface at a sufficient rate. This, combined with the effects of play on soil structure, notably soil compaction, means that many greens are unfit for play due to waterlogging during periods of heavy or prolonged rainfall.

In 1981 my former colleague, Caroline Ward, carried out a questionnaire survey of drainage on golf courses and found that 70% of courses were closed due to waterlogging at some time during the year of the survey. Greens were more prone to waterlogging than tees or fairways and over 80% of courses had at least one green with drainage problems of some kind.

The need to keep courses open all year round, partly due to public demand and the general interest in the game, and partly due to commercial pressures, has led increasingly to the view that a waterlogged green is unacceptable on the modern golf course. This in turn has provided greater impetus for the use of sand-based rootzones for golf green construction. By 'sand based' is meant a rootzone having a high preponderance of sand, either sand only, or sand mixed with soil and/or organic matter.

Whichever variant is used the objective is to provide a free-draining surface and good playing conditions, regardless of rainfall.

### **Problems of fertiliser nutrition and sand-based rootzones**

Because sand-based rootzones are so free draining, it means that soluble fertilisers, especially nitrogen and potassium, are readily leached through the rootzone by rainfall or excess irrigation water. This, together with the inherent low nutrient status of sands, means that fertiliser nutrition can be a problem. Also, the pH (acidity/alkalinity) of sand greens can be a cause of concern since sands have little buffering capacity. The use of acid-reacting fertilisers such as ammonium sulphate can cause pH to fall rapidly to low levels. Consequently, light but frequent liming has been suggested to counteract this tendency. However the use of slightly alkaline top dressing materials is more likely to be desirable in view of some of the deleterious consequences of lime application to bent/fescue turf. These include disease, particularly take-all patch, and invasion by annual meadow-grass. There has been little previous work done in the UK on the effects of fertilisers on sand-based greens prior to 1985 and since this represented an area where the STRI was being more frequently asked for advice, there was a potential gap in scientific knowledge which needed to be filled.

### **R & A support for fertiliser research on sand-based greens**

In 1985 the R & A generously provided support for a project to study the effects of the three major plant nutrients (nitrogen - N, potassium - K and phosphorus - P) and lime on bent/fescue turf grown on a sand-based golf green construction. Much of the initial expense was on construction of the trial area, which was completed during the summer of 1985. Operations were similar to

those in construction of a new golf green, with the eventual rootzone consisting of a very clean, lime-free, quarried sand to which 10% by volume of peat was added to aid moisture retention. There was considerable debate during the planning stages as to whether we should use a sand-only or a sand-soil type of construction. Indeed, this is a controversial issue which has rumbled on in the USA for many years. However, in research, in the early stages of any investigation it is always sensible to look at the extreme situations first - in this case sand-only - where problems of nutrient leaching and inherent lack of nutrients are at their most severe because of the free movement of water through the rootzone. The area was prepared and seeded in August 1985 with an 80:20 mixture of 'Frida' Chewings fescue and 'Highland' browntop bent.

In 1986 the experimental fertiliser treatments started, and these included three rates of N, P and K, with and without lime, in all possible combinations of nutrients. The total number of trial plots is 108, which requires considerable time and effort to collect the scientific data, and in summer 1986 Tim Colclough was appointed to take over the day to day running of the R & A trial.

### Playing quality

Much of the research on greens in the past has used agronomic or ecological methods of assessment which, satisfactory as far as they go, do not take into account the needs of the player except indirectly. Tim Colclough has been collecting data not only on ground cover and grass species composition, but also on aspects of the green which affect the player - this we term 'playing quality'. Aspects of playing quality include green 'speed', ball bounce, hardness and 'holding power'.

Green speed has been measured for many years by a device called a Stimp meter after its inventor, Stimpson. This consists of an inclined ramp with a notch at one end which holds the ball. The ramp is laid on the ground and the

end with the ball is gradually raised until a critical angle is reached and the ball rolls down the ramp. The distance rolled by the ball after it leaves the ramp is a measure of green 'speed' and the USGA has published green speeds for different classes of play.

Hardness is measured with an instrument called a Clegg Impact Soil Tester which consists of a 0.5 kg cylindrical hammer containing an accelerometer. The hammer is dropped on the green from a standard height and its deceleration recorded. The greater the deceleration, the harder the green. The figures are given out on a liquid crystal screen display which is connected by a cable to the hammer.

Ball bounce is measured by the release of golf balls from a 5m high ball bounce apparatus and recording the impacts with a video camera. The apparatus has a graduated scale fixed to the stand so that the height of rebound can be easily determined from the video films.

Study of 'holding power' of greens is more complicated since it requires that balls are fired at the greens with realistic speed and spin, and the resulting behavior of the ball studied. Fortunately, another project financed by the R & A is concerned with ball impacts on greens. Steve Haake, who

## RESEARCH UPDATE

works at the STRI but is registered for a PhD at Aston University, has developed equipment for simulating and recording the impacts of balls on greens. The ball is fired out of a specially developed ball-firing machine at about 35 miles per hour with 4500 revs. per minute of backspin (all golf shots correctly hit have backspin) at an angle of 45 degrees. If the speed seems slow compared to the speed off the club head, remember the ball slows considerably throughout its flight due to aerodynamic drag. In the holding power test the distance between initial impact and the next bounce is measured after the ball is fired out as described.

### Findings to date

To date, the effects on grass cover and species composition have been solely due to N, with no effects of P, K or lime. N increased cover and the content of bent, whilst fescue content decreased with N. Both lime and N reduced green speed,

>>



Ball bounce is tested during an R & A trial

## RESEARCH UPDATE

<<

although this should be seen in context in that the low N plots were pretty bare and grass cover would not have been acceptable to members or greenkeepers.

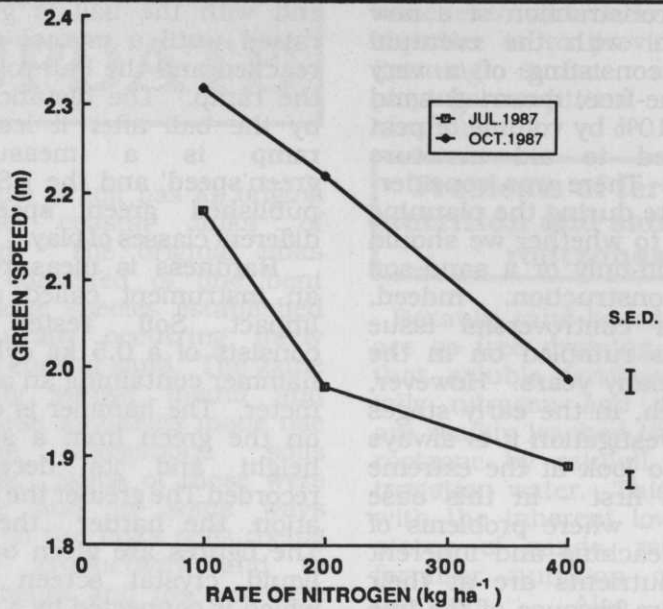
Ball bounce increased with N, producing a more 'springy' turf. There were also significant effects of K, lime and an interaction between lime and N. 'Holding power' or rather bounce length after impact also increased with N - this may be related to ball bounce, but what was more surprising was that there was a significant interaction of N and P. At high N, bounce length decreased with increasing P whereas at low N, bounce length decreased with increasing P.

The conclusions so far show that: (1) at least 20 g/m<sup>2</sup> of pure N is required for healthy growth on sand. (2) Increasing N favours bent at the expense of fescue. (3) Playing quality tests have demonstrated effects of nutrients not detectable by botanical analysis. The ball bounce and 'holding power' tests are a world 'first' in golf green research and their sensitivity and relevance to play make the results even more interesting.

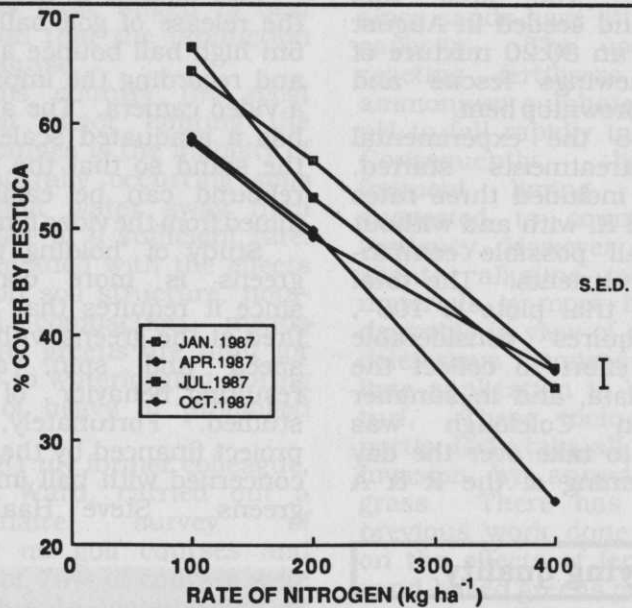
### Looking ahead

The R & A has put up further funds - to the sum of £50,000 per year - and part of these monies will be used for the next stage of the programme which is to look at the interactions between root-zone construction, fertiliser nutrition and irrigation of golf green turf.

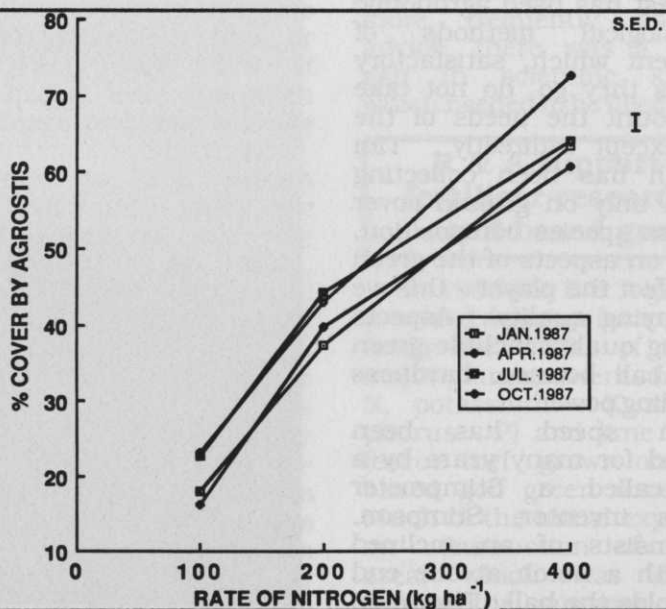
This will include sand, sand/soil, and soil greens and is probably the most complex and ambitious golf experiment ever attempted anywhere in the world. It will include three irrigation regimes and twelve nutrient combinations, as well as the three greens' construction types and will, hopefully, answer many questions about greens construction and maintenance which have been of concern to greenkeepers and agronomists alike.



The response of green 'speed' to fertilizer nitrogen

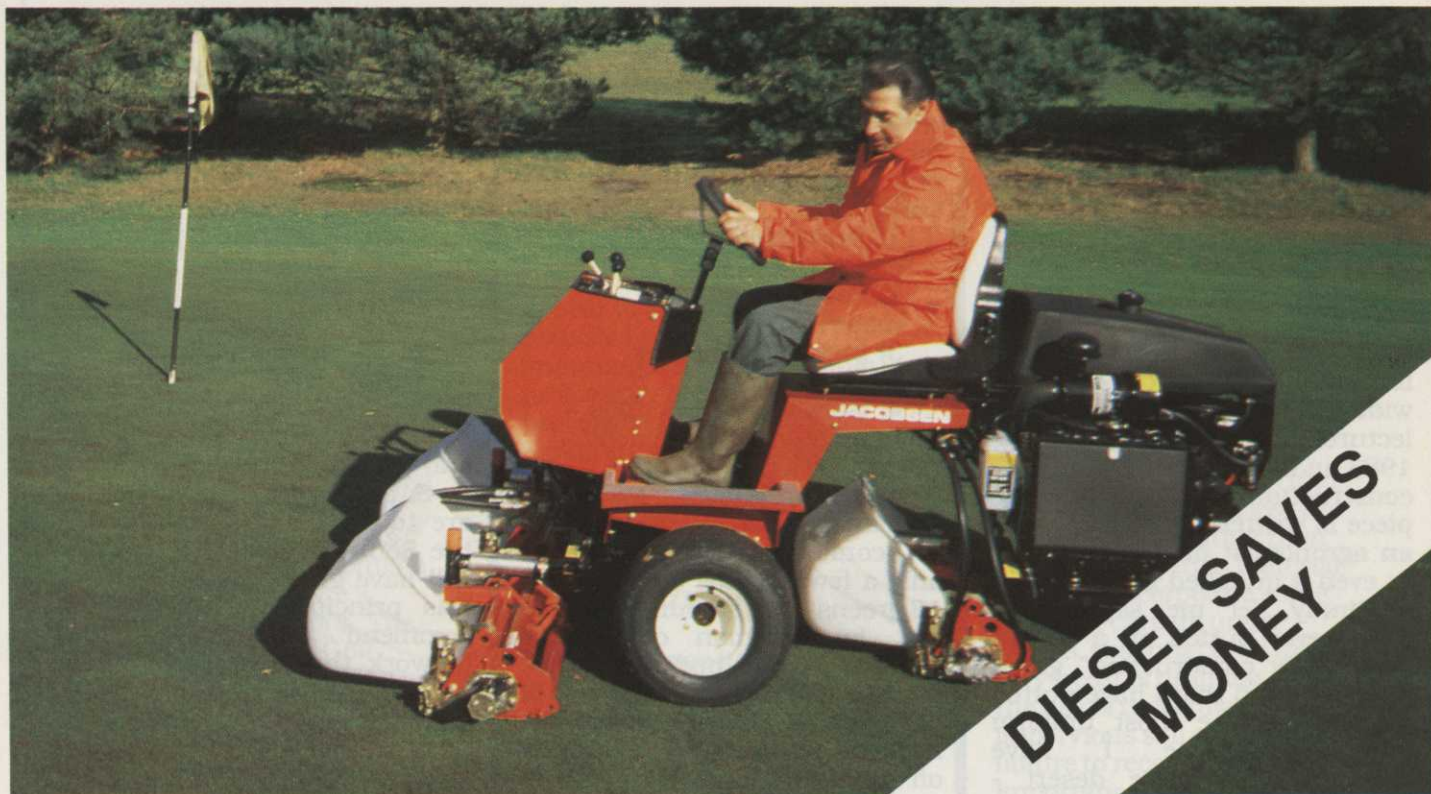


The response of ground cover of *Festuca ssp commutata* to fertilizer nitrogen



The response of ground cover of *Agrostis castellana* to fertilizer nitrogen

# JACOBSEN®



## ***KINGS ON YOUR COURSE***

- Compare our price
- Quality & reliability
- Running costs & maintenance
- Greens King - Turf Groomer
- Tri-King - unrivalled stability with fixed or floating heads

*For full details of the  
Jacobsen range  
phone Chris Smith on 0553 763333*



# SAND GREENS

by Michael Coffey

SO much controversy surrounds this subject that some time ago I decided to put my own thoughts down on paper. By publishing them I shall no doubt be accused of being biased, which I am not, and having a little knowledge - which is always a dangerous thing. But I write as I find.

I suppose my judgement must be coloured to some extent for I doubt that anyone country-wide has listened to more talks, lectures, seminars etc since 1983 on the subject of sand only constructions. However, this piece is written by a golfer - not an agronomist or a constructor or even a qualified greenkeeper.

Firstly, let me say that I have never putted on a decent "sand only construction" green in the UK and that I have putted on perhaps the most uniform putting surface I have encountered, in the desert - again sand only construction.

The greens I have come across in the UK have been patchy, even weed infested and the ball behaved as if it hit a tarmac road.

So why when we have other forms of construction which apparently work quite well do people bother with "sand"?

Well, in choosing this form of construction, cost must play a part. But if it doesn't work in the medium to long term it isn't cheap. The case for using the more traditional method of green construction is argued most eloquently by Jim Arthur on page 22 of this issue. I suspect that the main reasons

## a golfer's viewpoint

for the poor end-results in sand-only constructed putting surfaces are:-

- 1) Inexperience of the contractor.
- 2) Poor or unsuitable materials.
- 3) Inexperience of the advisor.
- 4) Isolated constructions. i.e. only one 'replacement' green at a time.
- 5) Inappropriate management.

I confess to having played on only a few courses on which all 18 greens were so built and they are, by common consent, I believe, poorly built and give the head greenkeepers plenty of problems. On the other hand, I have come across several 'one off' constructions, and assured that when the contractor left the sward was perfect bent/fescue, but, that within a relatively short period, the original turf or seeded grass has changed. I assume it must be very difficult to have one management regime for 17 greens and have to adopt an entirely different method for the remaining one. Perhaps this doesn't happen and they all get treated the same.

The other side of the coin is that if you can have a free draining (and surely sand is that) uniform construction that doesn't compact (therefore doesn't need so much aeration which means less surface

disturbance) this must be a good thing. If sand only construction can cope with more traffic, but is more expensive to maintain, never mind! More golfers on good surfaces will create more revenue.

The STRI are part way through research on this subject, funded by the R & A, and Mike Canaway has written an article explaining what has happened so far, but I deliberately wrote this piece prior to reading Mike's article and the STRI's findings to date.

Sand green constructions are to have a further boost as the South course at Wentworth will have greens constructed on this principle. This I wholly commend - for if this system is to work then there can be no better true "trial plot" and testing ground than at Wentworth. The course has as its advisors the STRI, the specification for the construction has been approved by them, so Wentworth have the best advice available. In Kevin Munt, Wentworth have an exceptional course manager who believes totally in the concept. Kevin has promised that his management programme and statistical records will be made public. So, hopefully, during 1989 we will have even more information both from the STRI and Wentworth.

Sand-only green construction is a fact, and like it or not, it will not go away - but perhaps in the meantime it is better to use the devil you know rather than the devil under research.

## GREENSWARD ENGINEERING CO.

SUPPLIERS OF HIGH QUALITY RECONDITIONED AND GUARANTEED TURF MACHINERY

RANSOMES BOB-CAT 48in rider, ex demo	£2,800
TORO 70 Triple	£1,500
RANSOMES 3 Magna gangs trailed	£1,600
RANSOMES 5 Sportscutter Mk 11 gangs	£2,500
RANSOMES 3 Sportscutter hydraulics	£1,600
KUBOTA Compact tractors	from £2,600
DIESEL Tandem roller	£1,400
HAYTER Condor 30" rotary	£795
RANSOMES Mastif 36"	from £1,400
RANSOMES 213 and 180	P.O.A.

Ring NOW for free machinery list.



LEEDS (0532) 751627

Harold Terrace, Headingley, Leeds LS6 1PG

## TURF MACHINERY HIRE

**PALMER MULTICORE  
HOLLOW TINE AERATOR  
EXCELLENT CONDITION**

**£1500.00 PLUS VAT**

**Ring Terry Philips on 07618 426**



# GOLF COURSE CONSTRUCTION

by Brian Pierson

THE golf course construction industry is enjoying a boom at the present time, unlike anything that has happened since about 1973. The influence of television and increasing leisure hours, together with the interest for outdoor activities, has sparked a revolution in the requirement for new courses. The industry now has to adjust itself from the doldrums to a very buoyant market; this is affecting not only agronomists and architects but more particularly contractors. The British Association of Golf Course Constructors which was formed some six or seven years ago, has been striving for improved construction techniques and quality of work and, whilst we have lived through a very competitive period, we now find ourselves in a situation where there are more projects than the industry has suitable construction managers, the very back-bone of our industry, to cope with the work. This increase in demand is very likely to cause considerable problems. It is difficult to bring on and train construction managers when the industry is in low spirits. My company, however, has been particularly fortunate in that we have had a very strong presence in the golf world and have had the good fortune, because we have had contracts, to train young men.

## a limit

There is, however, a limit to the number of suitable people to be allowed to be put in charge of a golf course. Whilst looking at the industry with considerable interest and enthusiasm, my feelings are tempered with fears of concern with, what I am quite confident will be poor golf course construction at certain levels. The NTC under the very capable

chairmanship of Howard Swan, recently held a seminar to put over the message to the farming community (which would appear to be the biggest potential customer) the importance of using not only professionals but of taking professional advice and of tackling the entire concept of a new golf course, in a thoroughly professional manner.

## successful

The conference itself was a great success; the only regret, I think shared by most delegates, was that we had so few farmers in attendance. However, hopefully the farming press together with our own magazine outlets will spread the word over the next few weeks. We now have the situation where golf courses are to be built and the ever recurring question is raised of what material do we use to build the greens? It would be so simple for all of us in the industry if there were a simple answer. The make up of green construction has been discussed repeatedly year upon year. The tendency to follow the Americans in all aspects of golf is on the one hand a natural progression, but one should remember and if I may quote Jim Arthur on this "they have a climate, we have weather". The STRI are currently undertaking trials on sand green bases funded by the R & A and this is obviously a very important step forward. Whether it proves once and for all that sand greens are not the answer to UK golf or conversely that with careful management, the correct materials, greenkeepers trained in the methods of amelioration and fertilization, that there is a place for sand greens, only time will tell. My involvement in golf spans some

22 years, a very short time in the fullness of the scheme of things, but sufficient time to reflect on past failures and successes. I have been involved in the construction or alteration of over 100 golf courses during that period and, without exception, the only problems that have been experienced have fallen into the following categories: the use of local soil rather than specialist imported material; failure to incorporate stone drainage carpets under greens, essential in all but the very freest of draining sites; the use of turf grown on impervious soil and the failure to recognise the importance of irrigation when constructing free-draining golf greens.

## backing off!

It is quite obvious to the reader that at this point I am backing off the contentious subject of sand greens! Very simply, it is because I do not feel I have enough experience or am technically qualified to pass judgement. During my construction career we have consistently used a sand/soil/peat mix based on deposits of soil from the Norfolk area mixed with local sharp sand. In the early 70's we were thinking in terms of a 50/50 mix and over the last decade have in fact increased the proportion of sand to 70/30. We constructed over 100 golf greens last year using this method and are confident that we will enjoy the same success as we have achieved over many years using this type of construction.

It is, however, time the industry generally, looked at possible alternatives and it is only by experimentation that a clear view of the way forward can be accessed.

# Land of the Long White Cloud



AETERO, pronounced (a-er-t-er-ro-er), is the Maori word for New Zealand and means the Land of the Long White Cloud. New Zealand, with its population of 3.3 million, and 70 million sheep has more golf courses per head of population than any other country in the world. North Island, with its capital of New Zealand, windy Wellington, has a sub-tropical climate to the north of Auckland.

Auckland Golf Club is possibly the most prestigious, where a visitor can only play in the company of a member, and where membership fees are the most expensive in the country. The course superintendent, Laurie Cochrane, who has only recently taken up the post, has a big reconstruction programme ahead. The sand green construction programme has already started, and it is planned to complete three greens every summer with Penncross.

A sand turf nursery supplies all the turf for the greens. The nursery is presently 1,500 square metres, and will be increased to 2,100 next autumn. Once turf has been removed from the nursery, re-sowing can be easily effected using an

undersowing operation. The root mat from the previous crop binds the sand surface sufficiently for grooves to be cut, into which the seed falls. Penncross turf seems well suited to the hot summers and warm winters of Auckland. Temperatures rarely fall below the 40s Fahrenheit and frosts, if any, disappear very early in the morning. Most courses in New Zealand have greens with a Brown Top and Penncross mixture and some suffer Poa invasion. Water for both greens and tees at Auckland is drawn from a large pond located on the course, which is supplied with water piped from an underground water hole. Virtually all courses are cut using triplex machines, mainly Toro and Jacobson. Pedestrian machines are rarely seen, due to an insufficiency of labour. Cutting height ranged between 3 and 4 millimeters.

## Welcomed

I was made most welcome at Auckland by the secretary, John Hutt, who showed me round the impressive clubhouse. I was interested to learn that, in order to become captain of the club, a member

## Above: Queenstown Golf Club

must serve 12 years on the committee. Not only status, but age, count for becoming captain. The club has been host to the New Zealand Open, but due to the present programme of course works, it will be at least five years before it does so again.

North Island has some very picturesque courses, none more so than Waitangi, which overlooks the Pacific Ocean, and from which the views are breathtaking. Titirangi, which hosts the Air New Zealand/Shell Open, was described by the American professional Al Geiberger as "the longest short course" he had ever played. It is in a beautiful location surrounded by magnificent areas of native trees and shrubs, and is rich in bird life.

The Bay of Plenty, the centre of the province of Rotorua, is a spectacular thermal area, where Arikikapakapa course (known as Whaka) has extinct mud pools, and steam vents which sometimes burst unexpectedly into life. Many courses in the North Island have Ponga (Silver Fern)

>>

# AROUND THE GREEN



## BRITISH AND INTERNATIONAL GOLF GREENKEEPERS ASSOCIATION

### SCOTTISH REGION

#### North Section

On Thursday, 19th May the North Section held their Spring Outing at Craigiehill Golf Club, Perth in glorious weather and on a course prepared in excellent condition by Arthur Williamson and his staff.

On a day of very good scoring on such a tricky course, M. McInnes of Nairn Dunbar (17) won the Frew's Handicap Cup with a nett 66, finishing two ahead of D.

Green (6) of Inverurie, S. Sullivan (6) of Craigiehill, D. Robertson (9) of Bon-Accord and R. Hardie (12) of Westhill.

George Paterson of Fortrose playing off two won the Coleman Trophy for Apprentices with his nett 69 (bih) but his boss and mentor George Hampton pipped him for the Bowen Scratch Cup with a 70. The wily old fox also won the putting competition.

Arthur Williamson used his local knowledge to good effect and won the Veterans Cup with a nett 71 off 1. Eddie Connaughton of Soutars retained the Trade Shield.

After the prizegiving, Mr. W. Milton and his wife were

presented with a crystal decanter, two brandy glasses and an inscribed salver by the Captain of Craigiehill Golf Club to mark his 25 years on the Committee of the North Section, most of them as Treasurer or Secretary. Willie, of course, is Head Greenkeeper at Downfield Golf Club in Dundee. We are indebted to Craigiehill Golf Club for the welcome and courtesy extended to us.

The sweepstake being run by the Section on the British Open is going along quite well, but could members still to return books do so as soon as possible especially those who are unable or unwilling to sell them as this will give the Committee and chance to redistribute them. One of our members on the move is C.

MacDonald 1st Assistant at Deeside Golf Club who has been appointed Head Greenkeeper at Newark-on-Trent. Charlie, who only recently got married, takes up his post on 10th June. We wish him and his wife all the best in the future.

These are definitely going to be four spraying courses around the North area for our members in

November avoiding the week of Scotsturf. These will be at Nairn (2), Fraserburgh and Letham Grange. It is also hoped to hold the AGM at Nairn to coincide with on of the courses there and arrange a demonstration and film show with it to attract a larger number. Once the dates are paired up with the venues and details finalised, we will inform the members as soon as possible. The Section has outlaid a substantial sum of money to purchase jerseys, sportshirts, ties and umbrellas which the Secretary has in stock. Any member wishing to purchase any of the above items can telephone him on 0346-26931.

**G. MOIR**

### MIDLANDS AND NORTH WALES REGION

#### East Midland Section

The Spring Golf Tournament was held Thursday, 12th May at Cosby Golf Club, Cosby, Leics. We would like to thank the Committee for extending us the courtesy of their course and Steve Donoghue for presenting the course in such a good condition.

# Supaturf

On course  
and growing  
places.

Eastern Branch Peterborough Tel: (0733) 68384  
Southern Branch Iver Heath Tel: (0895) 832626/834198  
Northern Branch Wakefield Tel: (0924) 891000  
Midlands Branch Kidderminster Tel: (0299) 250087  
Daunton Hunt Ltd. Newton Abbot Tel: (0626) 834499  
Supaturf Products Ltd., Oxney Road, Peterborough, PE1 5YZ Tel: (0733) 68384

## AROUND THE GREEN

Our thanks to go Kath and Joan for the cards and raffle, etc: to the companies and friends who donated prizes ; also to the Captain of Cosby, Mr. Bob Clayton, for presenting all our winners with their prizes.

### GREENKEEPERS Nett:-

- 1st M. Billings (65)
- 2nd R. Barker (68)
- 3rd M. Bindley (72)
- 4th S. Donoghue (74)
- 5th R. Allen (75)
- 6th G. Mitchell (76)
- 7th S. Fretter (77)

0-1-9

8th D. Bull (77) 0-1-9

9th G. Arnold (77)

10th N. Danvers (78) 0-1-9

### ASSOCIATE AND TRADE Nett:-

1st J. Barsby (69) 0-1-9

2nd A. Sharpe (69) 0-1-9

3rd I. Willars (69)

The Long Driving was won by R.

Barker, Nearest the Hole S.

Fretter and the Putting

Competition N. Root.

### REARRANGED DATE

Our Autumn Golf Tournament now takes place on Wednesday, 7th September at Kettering Golf Club, Kettering, Northants.

**R.W. WILLARS**

### Midland Section

"Hot July brings cooling showers, apricots and gilly flowers..." so says the Nursery Rhyme, but so far as our next Tournament at Maxstoke Park Golf Club is concerned, we neither want it too hot or too wet! Please remember to enforce dress rules at all our golfing events and let us not see jeans worn on the course again.

Jackets and ties to be worn in the Clubhouse, of course.

New members not yet in possession of entry forms for tournaments may telephone me.

We have not settled on a venue for the Len Breakwell competition, Willesley Park Golf Club were approached but expected us to pay a green feed.

May we wish well to Paul Mytton and anyone else on the move, who has recently left my side at Moor Hall to take up the position of Head Greenkeeper at Caulderfields Golf Club.

I have BIGGA ties in my possession in navy, burgandy and grey. These are for sale at £3.75. I also have details, price lists and order forms for other items of uniform available.

At the time of writing, the Rigby Taylor foursomes matches are hotting up and the results of the second round are as follows:-  
E. Thomas and T. Morris beat D. Brooks and R. Palmer  
I. Toon and P. Woodward beat D. Brazier and J. Randall  
D. Dorrell and A. Luckman beat D. Compton and R. Hammersley  
A. Boraston and A. Boraston beat T. Kelsall and R. Lowe  
S. Wood and T. Jesson beat A. Ryder and N. Woolfrey  
The other two results are as yet unknown.

My apologies to those of you who complain that my notes are too short, but as yet I have not received any items of interest from any of our members. So, for the time being, may all your divots be little ones!

**I.R. TOON**

### SOUTH WEST AND SOUTH WALES REGION

#### South West Section.

On Thursday, 19th May, we held our annual Jacobsen Qualifier at Ashburnham Golf Club. The turnout was good with a total of 28 people attending with only 5 of

Play  
around  
with

**ISEKI**

## AROUND THE GREEN

these being Trade members.

The competition was well-fraught with 4 people breaking par. The Jacobsen Cup for the best nett was won by Paul Hopkins, Ashburnham Golf Club with a score of 67.

The Brown's Shield for the best gross was won by Huw Morgan, Fairwood Golf Club with a score of 77.

The Waycott Cup for the second best nett was won by Philip Swain, St Pierre Golf Club with a score of 68.

### PRIZES

Paul Hopkins won a bottle of whiskey, donated by Ray Burrows of Brown's Bristol.

Huw Morgan won a glove donated by Colin Murphy.

Philip Swain won a bag towel donated by Colin Murphy.

### RAFFLE

John Hopkins, Paul Hopkins, Nigel Owens, Dennis Jones, Dave Mylchreest and Huw Morgan each won a golf ball in the raffle, held to help swell funds.

Qualifiers for Hunstanton on Tuesday, October 11th are Paul Hopkins and Huw Morgan, with

the reserves being Philip Swain and Mike Wilson.

### P. SWAIN

#### South Coast Section

This year's Spring Tournament was held at the West Sussex Golf Club on a beautiful day on a superb course. The course is a real gem with some delightful par 3 holes where the green is guarded by water. Alas, some came to grief at these holes, Peter Marsh managing to hit three successive balls into the water's edge. At the end of the day, the results were as follows:-

Roffey Cup - Lowest net score 36 holes Mark Webb (8), Alresford 71-67-138

Denyer Cup - runner up Phil Ryder (13), North Hants 71-70-141

Tregunna Trophy - lowest gross score 36 holes

Brian Forder (3), Southampton 74-77-151

Rowes Rose Bowl - Runner up Joe Newman (6), Downshire 83-73-157

Nita Stimson Trophy - Lowest Net Score 18 holes (Veterans) Charles Burke (12) Boscombe 85-12-73

Mark and Brian will now represent the Section in the Jacobsen's Greenkeepers Tournament. Trophies and prizes were presented to the winners by Mr. David Holmes of Jacobsens. Thank you David for your support during the day and Keith Jenman of Jenman Engineering. Prizes had been kindly given to the Section by:- Rigby Taylor, Ransomes, Huxleys, Frys of Gosport, Jenman Engineering Services, Synchemicals, Parkers and Jacobsen.

Details of our Autumn

Tournament are as follows:

Tuesday, 6th September, 1988  
Romsey Golf Club Tee-off from 8.30 am Morning 18 hole  
Foursome Afternoon 18 hole  
Greensome Entry fee £10.00 per person.

Members are invited to bring one guest partner.

Written entries stating names current golf handicaps with the correct remittance should be sent to:-

Mr. Joe Burdett 948 Castle Lane East, BOURNEMOUTH, Dorset  
Tel: Christchurch 483017

## THE DRIVING RANGE.

The ICI range of turf care products has been developed for professionals. Whether your target is turf weeds, insect pests, casting worms or turf diseases – whether the location is greens or fairways, look to the driving range.



**Professional Products**

TEL: (0252) 724525



'Daconil' turf contains chlorothalonil; 'Tornado' contains carbaryl; 'Super Verdone' contains dicamba, 2,4-D and ioxynil; 'Gamma-Col' turf contains gamma HCH.

READ THE LABEL BEFORE YOU BUY. USE PESTICIDES SAFELY.

# AROUND THE GREEN

Please note that the closing date will be Monday 29th August, 1988

**J.R. DENNIS**

## **NORTHERN REGION**

### **North -West Section**

The Spring Tournament in May at Tytherington was very well attended by both greenkeepers and their guests. The greenkeepers made their usual excuses about having trouble finding their clubs as they had not seen them since the Autumn Tournament, but went on to return some good scores on this new and very interesting course. Apart from the usual excellent prize table, there was also the added attraction of qualifying for the Iseki Regional Tournament at Moor Allerton on May 24th. Four from each of three categories qualified and they were as follows:- I. Farrell, H. Roberts, M. Sheehan, A. Peel, M. Finney, B. Hashim, B. Scott, P. Harley, S. Moon, B. Moss and P. Leigh. On May 24th, from sixty players at Moor Allerton the best score on the day was from I Farrell of the

North-West Section playing off 4 handicap and returning a 68 nett on a superb but very difficult course. Other qualifiers were S. Moon and P. Leigh.

The qualifiers for the Jacobsen Tournament were the best gross and the best nett from the Spring Tournament, and these were H. Roberts and S. Sheehan. They will play in the finals at Hunstanton on 11th October. Any member wishing to play in the Roses Match against the Northern Section at Blackburn Golf Club on 11th August please contact Bert Cross on 051-724-5412

**B. CROSS**

## **SOUTH EAST REGION**

### **London Section**

I would like to thank all those that contributed to the successful meeting at Bush Hill Park on 1st June. 31 were in attendance, which would have been higher if it had not been for the flush of growth prevalent at the time. Last minute apologies were received. Mike Smith had the course in

good condition.

In the winning frame was P.H. Gibson with 38 points closely followed by Trevor Extoby and S. Everett with 37 and 36 points respectively. The guest prize was won by Stewart McMillan. The longest drive on the 18th fairway by M. Henderson and nearest the hole on the 13th yours truly. Your next golf meeting is at Pinner Hill Golf Club on August 23rd at 4.00 pm.

Incidentally, I have a position left for a lecturer this winter and would like three volunteers, preferably apprentices, to do 15 to 20 minutes each to talk on a subject to suit themselves. Maybe they have something they want to get across. If you think you can do a short piece then pick up the 'phone NOW and give me a ring. I would like to welcome to our Section Mr. Cameroon who has taken on the position of Course Manager at Grimsdyke. Also congratulations to Jeremy Hill for his promotion to Course Manager at Sudbury Golf Club.

**M. PETERS**

**RANSOMES**

Comprehensive range brochure of grasscutting and turf maintenance available upon request.

**RANSOMES BRING YOU A BETTER PRODUCT.**

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

