Your specification or our mixture

Either way we give you the very best

Whether you are specifying for your own mixtures or relying on us for the grass mixture you need - you can rely on the varietal purity and trueness to type of these top varieties which have been proved in extensive trials at various centres.

We are the sole importers from Van der Have of Holland and can guarantee their quality.

Our J-range of mixtures which incorporates these cultivars gives you a grass for every purpose - there's 160 years of expertise in every one:

- J1 bowling greens, golf greens and other fine turf areas
- J2 greens, cricket squares, tennis courts
- J3 golf tees, hockey pitches, fairways
- J4 cricket outfields, fairways, parks and playing fields
- J5 rugby pitches, playing fields, parks
- J6 (Taskmaster) general purpose areas subject to extensive wear
- J7 football and rugby pitches
- J8 low maintenance areas, embankments

GREENSMASTER—a blend of bentgrasses for Golf, Putting and Bowling greens.
SPORTMASTER—a blend of leading perennial ryegrasses for intensively used winter games areas

Send for the J-range leaflet today

Remember the J-range from

Johnsons
TURF GRASS MIXTURES
W. W. Johnson & Son Ltd London Road Boston Lincs Telephone: Boston (0205) 65051
ECONOMY N FERTILISER

The new golf green fertiliser from T.M.S. Ltd

- Based on organic nitrogenous materials
- Packed in economic 25.5kg bags to treat 600 sq yards
- Analysis: N 10% (6.8% Organic); P.O. 5%; K2.5%; Fe 1.05%

Turf Maintenance Supplies Limited

Dromenagh Farm, Seven Hills Road,
Iver Heath, Bucks. Tel: Denham 832626/834198

Surface will allow. Sometimes a green is so undulating or bumpy that there are only two or three places flat enough for cutting the hole for the pin. This is not a happy situation, and a green like this should be earmarked for lifting and relaying eventually to provide a more suitable surface. New holes should be cut constantly, and as soon as the grass begins to show any sign of wear round the pin hole it is time to cut another hole in a fresh part of the green. Three or four new holes cut each week is by no means over-doing things when play is heavy. And, of course, the newly-cut plug should be carefully replaced to the old hole, exactly flush with the surface of the green so that the grass is not skinned next time the green is mown. Beware of putting back inferior turf in the old hole. Yorkshire fog for example can be spread around a green in next to no time in this fashion.

Quality of surrounds

Surrounds should receive similar treatment to that given to the greens, and really the only difference between the immediate surrounds and the green should be in the height of cut. Apart from the benefit to the golfer, this is also helpful if, as happens sometimes, the edge of the green tends to 'ebb and flow' to some extent, whether by accident or design. If the green is extended into the surround by mowing further out, this can produce a very ugly edge to the green for some time if the turf in the surround does not match up with that of the green, and if the levels are not true.

Summer can be a testing time for bunkers; dry weather causes the grass to die back around the tops where it is particularly vulnerable, whilst rabbits, foxes, stray dogs and children from the nearby housing estate make their contribution to undermining and erosion. General repair work must wait until the autumn, but if the growth of weeds and weed grasses in the sand outpaces the bunker maintenance work at a busy time they may be controlled in summer with a suitable weedkiller, and glyphosate (sold now by May and Baker) is almost ideal for this job since it will kill broad-leaved weeds and grass weeds (even grasses with rhizomes like couch) and yet is inactivated on the bunker sand as soon as it has dried. Therefore explosive shots out of bunkers, scattering sand on to green or fairway, are not likely to cause damage after the bunker sand has been sprayed with glyphosate.

Tee renovation

Tees, like greens, will suffer badly if all the wear is concentrated on one or two places instead of being distributed fairly evenly over the whole area. It is important therefore to move the markers regularly and progressively along the tee to a new position; and obviously the larger the tee the better, from the point of view of wear distribution. After the markers have been moved, divot holes should be trued up with sandy topsoil in which grass seed containing good cultivars of suitable grass species has been mixed. (It is not advisable to replace divots on tees since
this can produce irregularities in the surface.) The success of this summer seed renovation is variable, depending on whether the tees can be watered in dry weather and also to some extent on the exposure to wind, especially on coastal golf links.

It is rather surprising to find on one’s advisory rounds that there are still tees on a number of golf courses where mowing is done regularly without a box on the mower, and clippings are returned to the tee. One of the most necessary attributes of a tee is a firm surface, and the regular return of the grass clippings, in addition to favouring the spread of weeds and the proliferation of worm casts, makes the surface soft. Mowing without a box is, as a rule, not due to lack of appreciation of the consequences, but to lack of time or the fact that the tee mower does not have a box (or boxes). Neither of these problems is incapable of solution and it is mainly a question of cash.

**Fairway maintenance**

Finally, a word or two about the fairways. At this time of year mowing and periodic ‘divoting’, that is to say replacing divots and filling in divot holes and scrapes with a soil/seed mixture, are the main requirements in the way of maintenance. Golfers are often blamed for not replacing divots when really the culprit is a rook or crow which picks the divot up again after the golfer has dutifully fitted it back.

There is sometimes, especially at seaside links courses, the odd fairway or two where there is very little soil over sand—perhaps just one or two inches or so. A dry summer really hits fairways like these, and the turf becomes so dry and brown that one wonders whether it will ever recover. Recover it does usually, but it is never sufficiently compact and uniform to provide good lies. On one or two of the links in the south of England a grass making a substantial contribution to the sward is bulbous meadow-grass, which dies right back in a dry summer, new stems and leaves being produced from the bulb in the autumn to give a much improved cover of grass for the fairway during the winter. This, in fact, is the grass which was grown a long time ago on the greens of some of the golf courses in the Riviera—at Cannes for instance—when golf used to be played only during the winter. The performance of the grass in the summer was irrelevant.

Watering of fairways would have caused hands to be raised in horror 20 to 30 years ago but there is no doubt that discriminating watering of these very sandy fairways keeps the grass growing when there is no rain, without changing the botanical composition of the turf for the worse, and there is a strong case for the installation of a few pop-up sprinklers, at any rate in the more strategically important areas. The accent though should be very much on ‘discrimination’, the turf being watered just sufficiently to prevent it wilting and no more.

---

**STRONG SUPPORT FOR VANCOUVER CONFERENCE**

By Kevin Munt

It was my recent good fortune to have the opportunity to attend the 32nd Annual Canadian Turfgrass Conference held in Vancouver in March. This conference was a real education for a number of reasons, firstly the conference was an exercise in excellent organisation and co-ordination, secondly the whole affair was conducted with a nice balance of friendship and learning.

Including a two day 36 hole pre-conference golf tournament the show covered six days and over 50 greenkeepers teed-off for the two days of golf. These were joined by a further 600 registerants and their wives for the Conference. All these people stayed in the 5-star Hyatt Regency Hotel which was also the venue for the Conference. This created a marvellous holiday atmosphere. Every time I stepped into a lift or went for a drink in the bar, I met someone wearing the conference ID badge, so straight away I had something in common. This also made me feel that I was part of something large and important in the Turfgrass world. The North American Superintendent realises he is an important person in golf and that a Conference of this proportion is vital to his education and standing in that world.

Not only did I learn a lot about golf greenkeeping and running a conference for a large Association, I received a good golf lesson in the Tournament. I was drawn off the first tee with the Presidents of the Canadian and United States Superintendents Associations and it was a nerve-racking experience. The golf tournament was a very good ice-breaker for some of the early registerants and it gave us all a chance to get over the travel weariness, I say all of us because some people travelled 4000 miles from the east coast to attend their National Conference.

On the night before the conference started 500 people attended a cheese and wine party hosted by British Columbia Golf Superintendents Association. British Columbia was the host province for the Show. This was the first of three great evenings that followed each days lectures. The second evening was known as the ‘Rainbird Bash’. This was a real let your hair down session which included a large seafood spread and beer all night long. A dinner party hosted by Rainbird Irrigation. They also ran the opportunity to attend the 32nd Annual Canadian Turfgrass Conference held in Vancouver in March. This conference was a real education for a number of reasons, firstly the conference was an exercise in excellent organisation and co-ordination, secondly the whole affair was conducted with a nice balance of friendship and learning.

Including a two day 36 hole pre-conference golf tournament the show covered six days and over 50 greenkeepers teed-off for the two days of golf. These were joined by a further 600 registerants and their wives for the Conference. All these people stayed in the 5-star Hyatt Regency Hotel which was also the venue for the Conference. This created a marvellous holiday atmosphere. Every time I stepped into a lift or went for a drink in the bar, I met someone wearing the conference ID badge, so straight away I had something in common. This also made me feel that I was part of something large and important in the Turfgrass world. The North American Superintendent realises he is an important person in golf and that a Conference of this proportion is vital to his education and standing in that world. (So does his Club).

Not only did I learn a lot about golf greenkeeping and running a conference for a large Association, I received a good golf lesson in the Tournament. I was drawn off the first tee with the Presidents of the Canadian and United States Superintendents Associations and it was a nerve-racking experience. The golf tournament was a very good ice-breaker for some of the early registerants and it gave us all a chance to get over the travel weariness, I say all of us because some people travelled 4000 miles from the east coast to attend their National Conference.

After the two days of golf we enjoyed a free day to enjoy the sights of Vancouver. It is the most beautiful city I have ever seen and a marvellous place to hold a conference.

On the night before the conference started 500 people attended a cheese and wine party hosted by British Columbia Golf Superintendents Association. British Columbia was the host province for the Show. This was the first of three great evenings that followed each days lectures. The second evening was known as the ‘Rainbird Bash’. This was a real let your hair down session which included a large seafood spread and beer all night long. A dinner party hosted by Rainbird Irrigation. They also ran the opportunity to attend the 32nd Annual Canadian Turfgrass Conference held in Vancouver in March.
With a range of competitively priced, quality products, backed by aggressive marketing in an atmosphere of increasing leisure activity, Nickerson Turfmaster Ltd, one of Britain's leading manufacturers of professional grass cutting machinery, is looking to the future with considerable optimism.

"Design, performance, price competitiveness, nationwide service and absolute reliability, backed by aggressive and confident marketing, are the keys to success," commented Matt Templeton, the company's managing director. All this applies to the company I serve, but it could and should also apply to all sections of the 'turf industry' if I may call it that: be it grass seeds, fertilisers, pesticides or machinery.

"The UK, with the vast expertise of its groundsmen and greenkeepers, knows how to grow the best grass areas and playing surfaces and we must capitalise on it as individuals and as a country."

Matt Templeton (who lists his leisure interests as golf and gardening) has been involved with the Nickerson Group, well known for its wide ranging agricultural interests, for nearly 30 years. He launched Nickerson Turfmaster in 1976 when Charles Nickerson, the chairman, acquired the manufacturing interests of the old Horwool company in Maldon, Essex. Mr Templeton's son, Graham, a former banker and Young Farmers national council member, now works for the company as operations manager.

Last September Nickerson Turfmaster moved to a new, vastly larger factory in Gainsborough, Lincolnshire. Although the factory is now fully commissioned the company is proud of the fact that no production was lost during the move — a considerable feat as most of its staff had to be recruited locally.

Today, Nickerson's manufactures a full range of British-engineered machines to meet every professional need. The Turfmaster 70, for example, the longest established machine in the range, has a deserved reputation for sturdy and reliable engineering. It is able to cut up to two acres of grass an hour at speeds of up to five mph, in either wet or dry conditions.

The 70 features three independent and floating mowing cylinders that provide a varying cutting width of up to 70 inches. Two cylinder versions are available — five-blades for producing a superior finish where the grass is up to six inches high, or seven-blades for a fine finish on regularly mown areas. Highly manoeuvrable, its low centre of gravity and rear-mounted mowing cylinders also make it extremely safe on banks and slopes of up to 30 degrees. The Turfmaster 70 is extensively used by local authorities, golf courses, parks and sportsgrounds, schools, private estates and caravan sites.

The most popular model in the range is the Turfmaster 84. It is the only British machine capable of traverse cutting up to 35 degree slopes making it ideal for the maintenance of steep retaining banks, as well as formal and semi-formal areas.

"Because of its versatility it will prove invaluable for organisations who need to quickly cut large areas at an economic cost. Later this year we expect to be announcing a new and exciting development for the 2001."

The company's chairman, Charles Nickerson, says: 'I am confident of the future and with our recently strengthened research and development department, look forward to providing the machines that amenity and sport interests need not only now but also in the future.'

Reliability and ease of maintenance on the Turfmaster range — minimising costly downtime — are other features which Mr Templeton confidently points out. Privately, he can quote several instances where Turfmaster machines have undergone servicing at the same time as competitive machines and emerged with considerably lower repair bills. All of the company's machines carry a warranty, but it is rarely invoked.

"We pride ourselves on producing an efficiently engineered, yet simple product," added Mr Templeton. "Our machines have an excellent reputation for little or no downtime and, because they are easily accessible for maintenance, any repairs that are necessary can be carried out quickly and efficiently. The cost of Turfmaster spares are also highly competitive, and most can be supplied in 24 hours. In fact, we have held our prices since January last year. All these factors make the range extremely cost effective which is a big attraction for golf courses, local authorities and others. Many of them purchase our machines as a matter of policy."

All the machines produced at Gainsborough are subject to rigorous checks before they leave the factory, destined for the company's more than 40 UK distributors. The same stringent checks also apply to all export orders.

"We are perhaps unusual in that every stage of manufacture is signed for by the factory employees concerned as a measure of quality control; this enables us to quickly pinpoint problems in the rare event of anything going wrong," said Mr Templeton.

Apart from individual checks, completed products are given an extensive, overall inspection prior to shipping from the factory. The distributors also subject the machines to quality control check and ask customers to make a final inspection prior to accepting delivery.

"But regardless of all the manufacturing controls, the most critical part of production is the manufacture of the precision built cutting cylinders. It's quite obvious," explained Mr Templeton, "that a failure here means the whole product is in jeopardy."

Indeed, unsuspecting visitors to the company's factory often find themselves invited to undertake the 'sledgehammer test. A swing at the cylinder's cutting blades with as much strength as you can muster, leaves one in no doubt as to the strength of the product!

Matt Templeton himself, a fellow of the Linnean Society, is a total expert. Not only does he control one of Britain's most successful professional grass cutting machinery companies, but he has also

Profile

'Absolute reliability is a key to success'
written a book on grass care called, simply, 'Lawns'. And he is pleased to report that the book is completely sold out.

He has plans for another book, but for the moment, is keeping its contents a close secret.

Apart from grass cutting equipment, Nickerson manufactures a range of sweepers and power-assisted scarifiers and, by use of a special adaptor frame, a large range of Sisis accessories can be fitted to the Turfmaster machines.

Whilst demand for Turfmaster machines is steady across the product range, the company received an unexpected boost from the last Budget.

As a result of the massive increase in petrol prices, demand for the diesel-engine version of the Turfmaster 84 has gone as far as technology can economically reach at the present time in the grass-cutting field. Capable of cutting up to 30 acres a day on an eight gallon tank of fuel, it is a genuine all-rounder dealing with short parkland grass to tall dense scrub.

Powered by a Ford 1098 cc low compression petrol engine, the machine's fully floating rotary deck has a cutting width of six feet and a cutting height that can be adjusted from one and a half to six and a half inches. It can safely cut grass on steep banks up to 35 degrees and, with its offset cutting unit, can cut under overhanging branches, bushes and barriers, economising on expensive hand trimming time.

Apart from grass cutting equipment, the 2001 features a unique and patented hydraulic system in its tubular chassis. The system 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.

Like the rest of the Turfmaster range, the 2001 has been well engineered but simply designed to give years of service with the minimum of maintenance. It has fully hydrostatic transmission which obviates clutches, universal joints and gears. In many ways the 2001, which was introduced in 1979, was a machine before its time,' concluded Mr Templeton. No wonder, due to spending cutbacks, local authorities and others are buying larger, and therefore more labour saving, machines.

Seaweed for a healthy soil

By W.J. Visser, Alginure Products Ltd

'Not fit to live in'—'Pollution of environment causes mass exodus of population'

All too familiar headlines when we talk of our environment, the one that relates to un and our existence. Poor growth and susceptibility to disease, and as a result a possible reduction of lifespan. But does this only relate to us? No, it relates also to any environment which is host to a society of living organisms. As human beings we are very complex, but there are many far simpler organisms which require an equally suitable environment in which to live and prosper. Such an environment is the soil and in it grows the major stock of the greenkeeping trade—Turf.

Turf is an infinitely variable complex of grass, soil and organisms who must exist in harmony, this degree of harmony will represent the quality of turf and its wear and tear. Continually moving and providing water, food and shelter for roots, insects and microscopic life forms as well as food for the plants on the surface. It is perhaps these life forms primarily bacteria and fungi which require much more attention paid to them and their activities in the soil.

When mentioning these soil builders the word fungi causes a lot of greenkeepers' hearts to miss a beat; Fusarium being the most commonly spoken of on golf courses. But is should not be so! The amount of fungal activity in most soils is enormous, this being carried out by harmless and vigorous species which are continually digesting and humifying dead grass, roots and thatch.

These common soil fungi are perhaps the most powerful digesters of organic matter we have. They can, above ground, digest a fallen tree to pulp within several years, rot oranges or fruit within days and digest even the most distasteful waste quickly, cleanly and effectively, producing their own waste growth promoting and beneficial chemicals we do not even fully understand yet.

Just because we cannot see what goes on under ground, no way should we forget that it is one of Nature's most complex and vigorous areas of activity. In recognition of this activity we must pay more attention to our soil and it's life, using wherever possible products which will provide a balanced and beneficial response from the soil. Firstly, hard wearing turf must not be over fed. One cannot expect grass to put up with continued severe mechanical loading if it is soft and fleshy from overfeeding. Similarly, if it is overwatered one is artificially providing conditions outside it's designed capabilities.

Of course one has to use chemical fertiliser to feed and chemicals to control disease, if the turf cannot recover on it's own; but we must, as with all powerful complex chemicals, restrict use to when it is absolutely necessary, or resistance can be built up usually leading to the proliferation of the more 'toxic or poisonous' organisms. Over the years many advisors to the golf industry have arrived with differing motives. They range from genuine desire to pass on experience to fellow and less informed greenkeepers; to more colourful characters who for their own good reasons preach their own brand of turf management. Our beliefs are simple and easily understood with a common sense attitude to improving the most vital ingredient necessary to greenkeeping turf health:—The Soil.

The skills and direction of the greenkeeper is of the utmost importance, he can either produce a course which reflects his reasoning and his abilities in respect of his turf care programme, or be the puppet of advisors or salesmen. Available today is a very wide range of machines and materials with the potential to create the very best fine turf. They always say that a bad workman blames his tools, let us return to the skills where tools made for the job enhanced the craft. The 20th Century tools are, irrigation, balanced plant foods, fungicides, sophisticated and complex machinery—they are our servants not our masters. The technology is available to put together times instant cures for everyday problems, but must be used carefully as part of a well reasoned programme. One aspect we feel is nearly always omitted and that is a helping hand for the soil, and in this context we mean the general improvement in soil health. We know for instance that the use of Alginure Soil Improver has the ability to promote slowly and progressively an increase in soil micro-organism activity, redress many of the imbalances which can and do have an effect by the lack of trace elements, provide an almost identical natural chemical to humus, thus dramatically improving soil structure. It is not a synthetically manufactured product but the natural way of recycling everything which has been washed from land into the sea, being put back to the land utilising a natural plant—Seaweed. It is cold composted to retain all essential properties of a humified product but does not contain any significant quantities of plant food. It is food for the soil, not the plant. The ability is to feed, to repair and by doing so, lay the foundations and building blocks for the establishment of durable healthy golf turf.
AGM AT IPSWICH

Notice is hereby given that the Sixty Fourth Annual General Meeting of the British Golf Greenkeepers Association will be held at the Ipswich Golf Club, Bucklesham Road, Ipswich on Monday August 17, 1981, at 3.00 pm. Notice of resolutions must be sent in writing to the Hon. Secretary twenty-one days before the date of the meeting.

ANNUAL TOURNAMENT

The Sixty Fourth Annual Tournament will be held at the Ipswich Golf Club, on Monday, Tuesday and Wednesday, August 17-19, 1981. Entry Forms appeared in the March Journal.

Monday, August 17, a.m.
18 hole Medal Competition.
1st Round 36 hole Competitions.
18-hole Coming-of-age-cup.
3 pm A.G.M.
Tuesday, August 18, a.m.
2nd Round of 36-hole Scratch Cup and Prize.
2nd Round of 36-hole Senior Division Handicap.
2nd Round of 36-hole Junior Division Handicap.
Wednesday, August 19, a.m.
18-hole Medal Competition.
3 pm Prize Presentation.

Section Secretaries will be asked to verify the handicaps of all competitors from their records before the Tournament. All handicaps must be based on the National Golf Union’s Handicapping System.

May I remind all holders of trophies from last year’s Tournament who are not taking part this year, to ensure that these are returned to the Ipswich Golf Club, Bucklesham Road, Ipswich, by Saturday 15th August, 1981. Would all holders returning trophies ensure that these are in a suitable condition to be presented to this year’s winners.

EXECUTIVE COMMITTEE

A Meeting of the Executive Committee will be held at the Ipswich Golf Club on Sunday August 16, 1981, at approximately 5.30 p.m.

Signed: W. Heeles. Hon. Secretary.

MADDOCKS & DICK LTD

Sandeman House, 13 High Street,
Edinburgh, Scotland, EH1 1ST
Telephone: 031-556 2206

Established 32 years

Spray stops play

The trouble with some turf irrigation systems is that they can be triggered off without warning, so spraying both the green and golfers.

Rainbird has a centralised control unit to eliminate these problems and ensure that the spray heads remain where they belong during play — beneath ground level.

And with a dew removal system to spray each green in the morning, an early start and a good playing surface are guaranteed.

Now the only handicaps on the green are the golfers own.

For installation of complete golf course irrigation systems contact:
Wimpey Laboratories Ltd.,
Farrods Water Engineer Division,
Dallamires Lane, Ripon,
North Yorkshire.
Telephone: Ripon (0765) 4455.
TURF as it should be.

- Grown to maturity from the finest sports and amenity grasses in selected soils.
- Available in several grades, all beautifully consistent in quality.
- Harvested in square yard rolls for efficient handling and ease of laying.
- Year round supplies from nurseries throughout the country.
- Detailed laying instructions and written Guarantee with each delivery.

Rolawn
Rolawn (Turf Growers) Ltd
Elvington York Y04 5AA
Telephone (0904) 85406
Telex 57796

ARE YOU MOVING?

If so then make sure you continue to receive your copies of Golf Greenkeeping and Course Maintenance by sending us your new address.

Place your old address label here

My new address is:

Return without delay to Circulation Dept.
Golf Greenkeeping and Course Maintenance
17 Farringdon Street, London EC4

If you are a member of the BGGA then do not forget to let your Regional Secretary know about your change of address.

THE Parker Spreader

MASTER MODEL

for the professional user.

PRICE

£85.00

PLUS £12.75 VAT

The Master Model gives fast, even distribution of fertilisers, grass seed, etc., providing a spread pattern of 5 feet feathering out to 8-10 feet. It has a unique sector control provided by a special stainless steel cut-off, enabling operator to spread to one side only. The hopper is corrosion resistant and holds sufficient fertiliser to treat one green without refilling.

Distributed in the UK & Europe by

Parkers

T. PARKER & SONS (Turf Management) Ltd.
Worcester Park, Surrey KT4 7NF
Tel. 01 337 7791/0861 Telex. 24224
How often should aeration be carried out? Also can this operation be carried out too much and what are the best times of the year for aerating?

Most greenkeepers are well aware that the management of good turf is due to a carefully planned programme of maintenance which includes, mowing, top-dressing, irrigation, aeration, etc. Yet it is surprising how all the benefits of aeration are not fully appreciated and the frequency of this operation still continues to be neglected.

The pounding and rolling action of human feet can cause the development of the compact impermeable surface layer of soil and this condition can be aggravated by mowing, rolling and the use of other heavy equipment when soils are wet. It is often difficult to avoid compaction under such circumstances, and when it develops, grass roots generally suffer due to lack of sufficient air and moisture to permit normal functioning. In addition, it becomes more difficult for water and fertiliser to penetrate the soil.

In order to remedy this condition, various types of aerating equipment have been devised to break through the compacted soil layer mechanically. These different types of cultivating machines can be used by the greenkeeper to help relieve this compacted condition of the soil.

One often hears individuals asking how often the turf should be aerated: what the relative merits are of hollow-tining; slit-tining and spiking; what the benefits are of aeration? There may not be completely satisfactory answers to these questions for much of the evidence is based on observation and experience, not theory. However, the mere fact that these questions get raised from time to time does justify some discussion on the subject of aeration.

The important function of aeration is to alleviate compaction, assist drainage, control thatch and break up surface crustling. Correction of these problems even at the best, will never be complete as a percentage of the turf always remains untouched by spikes, tines or blades, the effectiveness of any aeration programme generally depends on the type of equipment used and the frequency of use.

The term aeration itself implies an improvement in the air penetration, or the oxygen-carbon dioxide relationships in the soil. It is acknowledged that frequent use of aerating equipment will improve the rate at which oxygen penetrates the soil, and carbon dioxide from root respiration and other sources will leave the soil. Compacted soils have a poor structure and drainage is restricted which inhibits this gas exchange; roots cannot develop and the capacity of the turfgrass plant to absorb water and nutrients is reduced. As a result, the turf suffers by becoming thin, weak, losing colour and vigour of growth. It is also likely to be more susceptible to disease in this condition.

According to experiments in the U.S., it was found that greens in good condition had satisfactory oxygen diffusion rates to a depth of 4 inches, but greens in poor condition had unsatisfactory levels, even at a depth of 2 inches. The tests also showed that routine aeration treatment produced satisfactory values at 4 inches, but not at 10 inches. On the other hand, experiments with deep aeration gave satisfactory values to a depth of 10 inches and perhaps deeper. It would appear from this that there is a direct relationship between depth of penetration and depth of good oxygen soil levels.

Further experiments have shown that standard aeration had little effect on water infiltration rates in a soil of bad textural and structural characteristics to a depth of 12 inches. This lack of response was attributed to the shallow depth of the holes (2 ‰ inches) in relationship to the tight soil. It was found that aeration to a depth of 6 inches provided temporary benefits. Most experts agree that it is important to achieve deep penetration of the soil when aerating the turf. Several companies who have specialised in the designing of aerating equipment for a great many years, have long been convinced that a greater beneficial effect can be attained in the management of turf by relieving sub-surface compaction which is a problem that has bedevilled many greenkeepers for ages.

The SISIS company, for instance, have recently introduced an 8 inch slitting tine for greater depth penetration in use with the Hydromain System as an alternative to the standard 6 inch tine. Obviously this operation is best carried out at a time of the year when conditions are soft enough to permit maximum penetration of the tines during the autumn and winter months. Good moisture penetration is assisted by regular aeration and the small openings created in the compacted surface provides channels and small reservoirs through which the water may seep into the soil and reduce the surface run-off.

Over a period of time, compacted soil layers may build up near the surface level on a green as a result of frequent top-dressing and a build-up of buried fibres. This often causes the surface to remain soft and soggy, due to poor water infiltration and restricted root growth. Penetration of these compacted layers with aerating tines may assist drainage into more permeable soil below.

The mixing and cultivation action of aerating tines helps to break down thatch and compacted soil layers. It also assists the penetration of top-dressing material into the thatch layers to enhance more rapid decomposition of the fibre build-up.

How often should aerating be carried out? This is a question often asked and no precise answer can be given. In fact, this operation is rarely overdone for most turf areas would benefit from much more use of aerating equipment. The poorer the soil conditions, the more frequent aeration should be. Even when there are not turf problems any turf expert would agree that regular aeration is a good preventative measure. The frequency of this operation is often limited by management rather than agronomic considerations.

This month's question has been answered by John Campbell who is a golf course consultant.
Surrey

Hon Sec: F. Brittin, Farseen, 13 Lawday Link, Farnham, Surrey. Tel: Farnham 713753

Members enjoyed a most splendid day at the section's spring tournament which was held at Tyrrells Wood Golf Club. This Leatherhead course is always in good condition and a tribute to Bert Watson and his staff. Two trophies were being played for and we were most grateful to all the firms who helped with prizes. Bill Mitchell, the well known professional from Selsden Park, presented the prizes. The leading ones were: Scratch prize and Ransomes Gold Watch — D. Johnson; first handicap — D. Ferne; second — P. Lucas; third — P. Wright; fourth — G. Beasley. A special prize was given to Nevil Shande for his hole-in-one.

The section expressed their gratitude to Tyrrells Wood for making us so welcome.

Wales

Hon Sec: Roger Bird, The Gatehouse, Cowbridge, South Glamorgan. Tel: 044 63 2001

We are now in the midst of our golfing competitions and only poor attendances so far, which is most disturbing. It hardly seems good manners to write to golf clubs for the courtesy of their courses when only a handful of members turn up.

The latest competition was an extra one in our schedule — the special prize being the Waycott Cup.

We made one big mistake, or at least I did, because all entrants should have been told of the committee ruling that the handicap limit was 18. The result was that first prize was taken by a 24 handicapper, Steve Hunt. Second place was taken by local boy Roger Thomas, who had the same score as Steve but lost on a count back over the last nine.

The section thank everyone who turned out and we hope to see you at Southerndown where the meal will be provided by the Golfing Union of Wales.

Sheffield

Hon Sec: B.V. Lax, 15 Sheaf Place, Worksop 83588

Our section AGM was held this year at Lees Hall Golf Club and the following are some of the most interesting points which came up for decision.

It was decided the rule banning all golf trolleys at our tournaments should be lifted and from now on members can use trolleys if they wish.

In future all entries for our competitions must be with our competition secretary, Peter Quatermaine, before the closing date with sufficient money to cover the entry fee and the meal. No member will be allowed to play in a competition if Peter had not received the entry form. To check that your entry has been received ring Peter on Worksop 83040.

The winter lectures for 1982 will be held at Lees Hall Golf Club on the first Thursday of the month commencing at 3.00pm if possible.

The official elected at the AGM are as follows: President — S.K. Arnold; Chairman — G. Herrington; Vice-Chairman — R.N. Mattby; Secretary/Treasurer — B.V. Lax; Comp Secretary — P. Quartermaine; Executive Committee representative — H. Herrington; Section Committee — E. Palmer, K.B. Heaney, F. Frost, H. Herrington, G. Mason, S. Platts, H. Howie.

The President’s prize this year was played at Tankersley Park Golf Club. The weather was fine and sunny and the course was in excellent condition thanks to the work of head greenkeeper, R. Graham and his staff. The prizes for the whole event were provided by our president, S.K. Arnold to whom we are most grateful. Winners of the 18-hole stableford were: First — Neil Mattby (34 pts); Second — Simon Wooley (30 pts) won over the back nine after a tie with Barry Heaney. Fourth, Phil Fielder (29 pts).
**BGGA NEWS**

**Midland**

Hon Sec: B.D. Ganning, 2 Fairdene Way, Great Barr, Birmingham B43 5JS. Tel: 021 358 1246

The spring tournament was held at Broadway Golf Club in May with the following results:
- First gross: M. Hughes (125); second best nett: D. Roberts (126); Best nett: A. Borton (99); second best nett: V. Smith (109.5); third nett: S. Wood (110).
- Guest's prize, J. Woodfield (117).

With all those with their results from the first round of the Matchplay Foursomes please send them to D. Keen without delay. If you have any problems arranging your fixtures in this event then ring D. Keen on 0952 461 173.

We were particularly pleased to see the Captain who spent the whole day with us.

With pleasure announce that they hold the greatest concentration of lawnmower spares and lawn mower engine spares in the country.

ENORMOUS STOCKS OF RANSOMES SPARE PARTS

**South West**

Hon Sec: 1 Scoones, Failand Lawn, Failand, Bristol. Tel: Long Ashton 2676

The Greenkeeper-Am competition took place at Westonbirt in May with the largest entry so far for this competition. It's popularity seems to be growing and a great deal of fun was had by everyone who entered.


The section thanks Westonbirt School for allowing us to play on the course and Bob Gates for putting up with us. Thanks also to the trade once again for their support and to Mike and Pat Bell for their hospitality and the cold buffet afterwards.

**BGGA NEWS**

**North West**

Hon Sec: D.F. Golding, 38 The Grove, Flixton, Manchester. Tel: 061 748 8592

Our now retired section Chairman, Mark Holmes, together with all the staff of Hesketh Golf Club gave us all a most enjoyable day for our 1981 Spring Tournament. With very little growth in early May the course was still in excellent condition and the closing holes certainly broke a few hearts, mine included!

Bert Scott (Shaw Hill) was the winner of the new Spring Trophy donated by D.B. Hargreaves of Sissons and we were also grateful to Roger Hargreaves for coming along to present the cup on its debut. Onto the over 55s and those who could step off an aeroplane at 6.30 am, travel to Hesketh without any sleep and win a cup but no other than our new Chairman Dick (Ballasteros) Lewis. The Spanish sun or wine must have done him good! His chauffeur, Edwin Walsh, took the gross.

Our thanks go to all our friends in the trade for furnishing our prize table. There are too many to list but once again gentlemen thank you for all your support.

Thanks to Nick Gray and David Royle for helping all day with the monies and cards and finally our thanks to the Captain and Hesketh Golf Club for being so helpful to us and we certainly hope to return one day and master their course.

For members unable to attend our AGM I would like to list the new officials for the year 1981-82 and also list the points of interest to come from the minutes:
- President—E. Staniforth, Chairman—R. Lewis; Vice-Chairman—A. Cross; Sec/Treas—D.F. Golding; Ex-officio—M. Holmes. Committee: S. Arrowsmith, J. Bond, M. Bottomley, B. Gregson, H. McAddey, J. Robinson.

A long serving and hard working member of the committee, Reg Vickers, declined to stand this year and the Chairman presented Reg with a tankard which we hope will be put to good use.

Points for discussion by the incoming committee arising from Any other business:
1) In future the cost of the day at the Spring/Autumn Tournaments will have to be paid for in advance to assist with catering etc.
2) At the Spring/Autumn Tournaments one guest per greenkeeper who does not necessarily have to be a member of your club.
3) The section to hold its AGM on the morning of the Sissons Tournament.
4) Starting times to be used at the Sissons Tournament.

Points 1 and 2 were passed by the members at the AGM so please bear this in mind for future reference.

I also confirm that the Home & Away Quiz with the Manchester Branch of the Institute of Groundsmen was warmly welcomed and Barry Gregson will be our chief liaison with the IoG.

One of our Vice-Presidents, Russell Faulkner, has offered to arrange a day's visit to the Supaturf Works if sufficient members are interested. A joint trip with the Manchester IoG members may be arranged depending on members' response.