MAY/JUNE '88

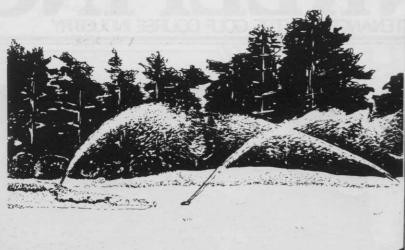
MANAGEMENT AND MAINTENANCE FOR THE GOLF COURSE INDUSTRY



Watermation

NEED A NEW IRRIGATION SYSTEM, OR SERVICE ON YOUR

EXISTING ONE?





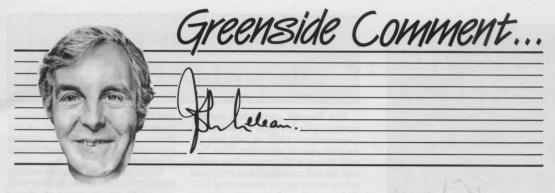
Watermation can provide 1st Class Service both of our own manufactured equipment, and other makes. We have large stocks of spares and a full team of trained service engineers equipped with car phones to give you the best possible service.

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.

Toro the name you can trust



GGCM/6/88



NOT IN MY BACK YARD!

The NTC Conference at Stoneleigh last month, was not only one of the most informative gatherings held in this country on the development of amenity turf grass, but was marked by a forthright introduction by the Minister of State for Agriculture, the Rt. Hon. John Selwyn Gummer.

From the facts given in an unusually frank address to the delegates, followed by searching questions from the floor, there is little doubt the Government are facing the question of surplus rural land head on and their policy is likely to lead to a considerable degree of controversy, not only with the district planning authorities, but those who live in the countryside.

Over production of food in Britain can be attributed to three principal factors. The increased use of fertilisers, the more efficient mechanisation of larger farming units and by no means least a greatly improved management structure by our Agriculture Industry.

So what are we going to do

So what are we going to do with the poorer grades of agricultural land?

The Government are currently being pressed to re-develop the

inner cities for housing, but there should be a choice. Not everyone wants to live in an inner city, particularly if sensible development can take place in rural areas.

The Minister made it clear the policy is to encourage farmers to develop other businesses on their land with the emphasis on leisure. Included in this plan is an expansion of sporting activities covering a range of projects from pony trekking to golf courses, though Mr Gummer delivered a body blow to some, with ideas of carving out an eighteen hole course on a spare one hundred acres, by saying there would be no Government funding for golf courses, but they would consider grants for other recreational development.

Now comes the dilemma. The demand for golf has increased from 0.5% of the population in 1959 to 2.4% in 1984, but in this period only around 250 new courses have been constructed, less, those established courses sold off for housing development.

We need many more golf courses in Britain to satisfy demand, but the cost of laying out a new course plus the provision of an appropriate clubhouse can run into a minimum of £1 million, even if the developer owns the land. It must also be taken into consideration there will be no return on the investment for at least two years, the minimum time necessary for it to mature.

The fact must be faced, despite the objections from the planners and rural residents, the way this can be achieved is to follow the American pattern of linking golf courses with high class housing development. Only in this way can sufficient funds be generated to provide an amenity for all.

The selfish attitude by some rural residents, invariably those who have moved in last, of pulling down the portcullis on their preserve and opposing change to their community in any way, must be overcome.

The days of the member owned club in Britain have ended. The existing ones will continue, but if we are going to provide an expansion of golfing facilities for the new generation, commercial enterprise is the

only way forward.



Editor & Publisher: JOHN LELEAN

National Advertising

Executive:

Mike Massey
'Fieldside', Grange Road,
Bowdon, Cheshire
Tel: 061-928 2997

Printing by: Walkergate Press

Graphics & Design: Bruce McDonald

Golf Greenkeeping is a combined subscription and controlled circulation publication for the golf course management industry. Current distribution 2,500 copies per month.

Published ten times per year. Copies are available on subscription, postage paid, £14.00 per year. Overseas surface, £16.00 per year. Air mail rates on application to the publishers.

The Editor and Publishers do not necessarily agree with the comments and views expressed in this publication and do not accept any responsibility for any personal opinions stated therein. © Copyright 1988 Golf Greenkeeping. Permission for the reproduction of features and articles will be favourably considered for non commercial purposes on application to the publisher.

Published by: Wharfedale Publications Limited

P.O. Box 12, Wetherby, West Yorkshire LS22 4SR.

Telephone: (0937) 63181

 GREENSIDE COMMENT
 3

 NEWS ROUND UP
 4, 5, 6, 8, 9, 12, 13

 TECHNICAL
 14, 15, 16, 17

 SITUATIONS VACANT
 17, 18

 TRADE DIRECTORY
 19







TERRALIFT THE TROUBLESHOOTER

The Terralift contracting service started by Colin Pryce Terralift at the beginning of 1987 is well into its second year of operation. The Ter-ralift drives a 30" long hollow probe into the soil and releases a charge of compressed air at a pressure of 150-300 psi via three holes at the base of the probe. This release of air causes the soil to heave and fracture while

was found and in an untreated area there was dieback on most of the plants. The rest of the planting showed vigorous new growth on top of their first year's growth.

Together with commercially treated trees there are several trials around the country being monitored by different organisations including the Forestry Commission. Some



Play continues. The Terralift is shown treating a golf green whilst in play. Note lack of damage to the playing surface.

leaving the surface relatively unaffected. Powdery to granular materials may be distributed into the soil with each charge. Designed originally for tree root treatment its benefits in relieving compaction of the soil can be applied to other areas such as landscapes and sports turf. There now appears to be a definite trend in its use and troubleshooting is the best way to describe it.

Edenbridge Golf and Country
Club was experiencing very poor drainage on two of their greens. The Terralift was called in to "open up" the clay subsoil with very good re-

"I consider the Terralift to be the most beneficial sub-soil drainage machine to be introduced into this country" stated the head greenkeeper.

Bedfordshire County Council had a problem on a landfill site near Shillington. A quarry filled with highway waste and capped using heavy machinery was planted with various tree species which subsequently suffered a near 100% death rate. The advice sought concluded that the failure was due to soil compaction. To rectify this a new problem arose; conventional subsoiling requires heavy machinery which would have been impractical in the small fenced areas and, more importantly, there was the threat of bringing to the surface the waste that had been so thoroughly buried. Again the Terralift was called in and treated the site in March 1987 prior to replanting. During this year's Spring follow up visit only one dead whip

treatments are already showing encouraging signs. There have been no adverse signs of root damage or, as the October hurricane proved, destabilisation of the trees.

The Terrralift has been used to incorporate various products into the soil such as the water storing Polymer Broadleaf P4, slow release fertilizers including Floranid Tree, sea-weed meal and Alginure. The Terral-ift is at present being evaluated in trials by a leading independent research establishment to control fairy rings by fungicide soil injections.

British Seed Houses Grass Seed at St. Mellion **Golf & Country Club**

All the grass seed used on the new Jack Nicklaus Golf Course which has been constructed over the past 3 years at the St. Mellion Golf & Country Club, Saltash, Cornwall was supplied by B.S.H. Ltd.

This superb course has been sown down with Penncross Creepion Both on the process of Pennson Research Pennson Course has been sown down with Penncross Creepion Both on the process of Pennson Pennson

ing Bent on the greens and Penneagle Creeping Bent on the tees. The greens are in perfect condition for the official opening by Jack Nicklaus on Sunday, 10th July.

The fairways were all sown down with the British Seed Houses A12

Fairway Grass seed mixture which is based on their top rated Frida Chewings Fescue, which has been used on a number of major golf course projects in recent years.



News..News..News..News.

NTC's Stirring Seminar

Seventy delegates representing both the farming community and the leading manufacturers in amenity turf grass equipment attended a one day seminar at the National Agriculture Centre last month entitled "The Recreational Diversification of Farmland."

The NTC has recognised that the way forward towards an increase in the acreage of amenity turf can only come from the release of surplus agricultural land and this aim coincides with the present policy of central government.

Thousands of acres of poor quality grazing and land producing a low yield of crops will have to be given a change of use if the thousands of smaller farms in Britain are to survive. One way, according to the Minister of State for Agriculture, the Rt. Hon. John Gummer, is for farmers to diversify into alternative business to supplement their income.

He told the NTC, "Farmers who have an unused barn or surplus land should think about setting up a sports complex. By providing space for pitches, indoor courts and swimming pools a farmer can not only increase his own income but also improve the quality of life for those living around him.

"Diversification is not just about establishing new types of businesses which are good for the farmer and his family. It can also be of direct benefit to those who live and work in the rural areas.

"I know that the Sports Council is concerned about the lack of suitable facilities in the countryside. We in MAFF have been working closely with them over the last year to explore ways in which we can co-operate in this area and have jointly commissioned research into the economies

of setting up and running sports enterprises on farms."

Mr Gummer went on to say how pleased he was by the enthusiastic response to the Farm Diversification Grant Scheme.

"We have now received well over 500 applications in England and some £500,000 has already been allocated to help farmers develop new businesses. Of course, diversification is not for everyone but for those farmers who are well placed to seize the opportunity it can mean making fuller use of land and buildings on farms and getting a better return for them."

In answer to a question from the floor, Mr Gummer said it had been decided to exclude grant aid for golf course developments, though when pressed conceded that the policy would be kept under review.

Other speakers at the Conference, ably and professionally chaired by Howard Swan, included Mike Collins, Planning Officer for the Sports Council, Sue Morris-Eyton from the NFU, Dr Peter Hayes, Director of the STRI, Jack McMillan, Course Manager at Sunningdale and golf course architect Simon Gidman, of Hawtree & Son.

Simon Gidman, costing the building of a new golf course, told the Conference anyone contemplating such a development would need to start with a minimum of 120 acres of suitable land, which if correctly planned would produce an eighteen hole course of



Howard Swan

around 6,000 yards.

By using local contractors and direct labour, greens, tees and fairways could be constructed for between £300,000 and £500,000. To that figure a further £50,000 can be added for an irrigation system, more if extensive drainage is necessary.

All this money has to be paid out before a penny can be recouped in green fees so there are the interest charges on the loans to take into account.

Do your market research first, advised Mr Gidman. Check on the waiting lists for membership in nearby golf clubs. Is there the demand to generate 40,000 rounds a year, which in round terms is 100 golfers a day, paying a green fee. This could be reduced if a membership club can be formed.

Dr Peter Hayes covering

the subject of constructionand maintenance confirmed these figures from his own research, but in addition drew the delegates' attention to the equipment needed to keep the course in top condition.

Jack McMillan gave the Conference the practical problems of maintaining his two courses at Sunningdale. Controlling and maximising staff, keeping to a budget, fighting the elements and to some extent the golfers.

"There is nothing more offensive to a golfer than a piece of aeration equipment, yet nothing more essential", he added with feeling.

Editor's Note....
See Greenside Comment on page 3



News..News..News..News.

NAME CHANGE FOR MAY & BAKER

May & Baker, one of Britain's foremost chemical companies, has changed its identity to that of its parent, the chemical multi-national Rhone-Poulenc.

May & Baker has been part of Rhone-Poulenc since 1927. The move is designed to enable the company to take full advantage of being a visible part of one of the world's premier chemical groups. However, the May & Baker name will continue to be used where its particular strengths and associations have a distinctive marketing role to play, most notably in the company's health care activities.

Dr Keith Humphreys, chairman and managing director of May & Baker emphasises the international dimension of the move.

"In the increasingly competitive world in which we operate, it is vital for us to be seen as part of a fully integrated international group in which we can make our size and strengths pay," he said.

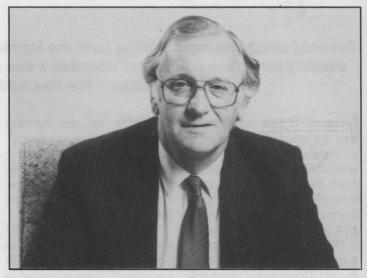
"The group is investing in the creation of a strong international identity and our own move enables us to capitalise

fully on that investment."

During its 60-year association with Rhone-Poulenc, May & Baker has already become a significant force within the group. It is a major research and production entity and makes a substantial contribution to group activities world-wide, particularly in the health care and agrochemicals areas.

Rhone-Poulenc itself is the world's ninth largest chemical group. It is a world leader in pharmaceuticals, rare earths, phosphates and many other chemicals, and is the world's third largest agrochemicals producer. It has a turnover of almost six billion pounds per annum. The group spends £340 million each year on research and development - a greater percentage of its turnover than some of its larger rivals - and spends a further £150 million on environmental protection.

"At present, Rhone-Poulenc trades under at least 40 different names in 140 countries worldwide, which puts the group at a disadvantage as far as other multinationals go," says Keith "Rhone-Humphreys.



Dr Keith Humphreys, Chairman and M.D. of May & Baker, now heads Rhone-Poulenc in Britain.

Poulenc is looking to move from being perceived as a French focused company to one with a true international dimension. Already more than 70 per cent of its sales turnover is outside France. Likewise, May & Baker has been seen in its turn as a UK company with overseas affiliates. This new move enables us to be seen for what we in effect already are - part of a truly international operation." **Divisions**

From May 31, May & Baker Limited will trade as Rhone-Poulenc Limited, with three

divisions: Agriculture, Health Care and Chemicals. Within the divisions, those operations where the name of May & Baker is currently significant to their performance and market reputation, will retain this name as part of their trading identity - e.g. May & Baker Pharmaceuticals, May & Baker Garden Care and May & Baker Laboratory Products.

Overseas, the May & Baker subsidiary companies operating in the Commonwealth will change their name to Rhone-Poulenc.

Prime Watermen Itd

Wangford

Beccles

Suffolk

NR34 8AX

Tel: (0502 78) 481

TIX: 975731 PRIME G

IRRIGATION SYSTEMS - DESIGN - SUPPLY - INSTALLATION

Dependable custom designed irrigation systems that will work for you day and night unsupervised, and keep working year after year.

A PRIME system using WEATHER-MATIC integrated components represents a value for money investment allowing for future expansion together with economy of use.

Let us undertake a study to answer your questions or give a free estimate on the system that really works.





THE AUTOMATIC CHOICE FOR IRRIGATION

First & Foremost 1 LITRE

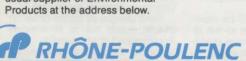
MILDOTHANE TURF LIQUID

SPASOK. Fig. and the risk is sentenced and risk reservation.

11111

A comprehensive range with a quality of service that's difficult to beat - why settle for less?

For further information or advice on specific problems, contact your usual supplier or Environmental



Environmental Products Regent House, Hubert Road, Brentwood, Essex CM14 4TZ. Tel: (0277) 261414.

READ THE LABEL BEFORE YOU BUY: USE PESTICIDES SAFELY

The control of vegetation and its associated problems calls for professional management and cost effective solutions. **Environmental Products supply** a wide range of herbicides, fungicides and insecticides, as well as products to control moss and to restrict grass growth. In addition to the range of pesticides, ancilliary products including "Dyon" spray colourant, "Lurmark" filters and nozzles, knapsack sprayers,

The key is the provision of a service and range that is second to none. To assist in training and education, **Environmental Products have** also produced a wealth of information for the professional.

granule applicators and

dispensing pumps are

available.

Information Service

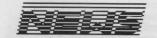


Videos and Literature



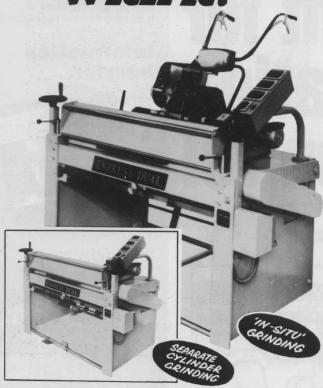
A comprehensive range of literature incorporates six professional guides and three training videos. Details of videos, booklets and further information on any of the products may be obtained from your usual supplier.
SUPERTOX 30
contains 2, 4-D/mecoprop SERITOX TURF
contains dichlorprop/MCPA
MILDOTHANE TURF LIQUID
contains thiophanate-methyl
ROVRAL GREEN
contains iprodione contains iprodione ROVRAL GRANULES contains iprodione SUPER MOSSTOX contains dichlorophen
CASTAWAY PLUS
contains thiophanate-methyl/lindane
CROSSFIRE contains simazine/aminotriazole/ ammonium thiocyanate

licence. DYON is a product of The Regal Chemical Co., sold under licence. LURMARK is a product of Lurmark Ltd, sold under licence.



Twice the machine

...and honest with it!



We believe that our experience based on over 100 years of research and development has produced probably the finest lawn mower grinding machines available today. Our customers tell us the "EXPRESS DUAL" is a really 'honest' machine that's built to do the job and do it well! It will successfully grind cylinders 'in-situ' or 'separately', just as efficiently and just as accurately and it will keep you going when repair work builds up.

THE MASTER is a heavy duty lawn mower grinding machine particularly suitable for gang mowers and rebladed cylinders.

THE ANGLEMASTER has been specially designed and developed for bottom blade grinding.

... there's no substitute for experience!



ATTERTON & ELLIS LTD

Iron Works, Haverhill, Suffolk CB9 8QH. Tel: Haverhill (0440) 702312/3

Manufacturers of fine lawn mower grinding machines for over 100 years.

News . . News .

Trent-Jones designs Shanghai Golf Course

In what is believed to be the first three-way joint China-U.S.-Japan business venture, championship 18-hole go championship 18-hole golf course and resort facility will be built in Shanghai. The deal is expected to enhance the friendly relations of these three leading nations in the Pan-Pacific area.

A joint agreement was signed May 12 in Shanghai by the representatives of Shanghai Sports Service Corporation, the Chinese construction company, Aoki Corp. of Japan and Prescott Bush Resources Ltd. of the USA

The golf course, the first to be built in Shanghai in modern times, will be designed by international golf course architect Robert Trent Jones Jr.

The investment for the resort and golf course is estimated to be \$18m US dollars. Project construction starts in September this year the course opening is scheduled for summer 1990.

Slow Release Nitrogen

The continuing controversy over slow release nitrogen fertilisers continues with a statement from Keith McKee, Fison Horticulture's Turf and Amenity Adviser.

Some suppliers are offering large discounts for IBDU based fertilisers which may not match up to the expected require-

Greenkeepers should ensure that the product offered, does what it claims to do and the contents of the bag completely meet the formula stated.

In the interests of fair commercial practice we published the Fisons statement in full.

'In considering the use of an IBDU based, slow release N, fine turf fertilizer, there are two factors which must be borne in mind. Firstly, the proportion of slow release to rapid release N source and, secondly, the actual quantity of the product the application rate will provide.

IBDU releases nitrogen slowly, over an extended period of time. If it is not present in sufficient volume when spread, its N release will be at too low a level to derive any visible, sustained response. In other words, your time and money will have been wasted.

Statements of IBDU percentage in fine turf fertilizers, whilst a valuable step towards fair trades description, must not in themselves be taken as a product endorsement. For example, fifty percent of not very much released over several weeks does not contribute any discernible improvement to a playing surface.

A hypothetical example of 8:0:0 formulation with 50% as IBDU, for instance, is definitely inadequate - providing only four units of slow release nitrogen over the long release period.

Our trials and experience show that a standard application of 35 g fertilizer per square yard, at least 10 units of IBDU are required in the product formulation to achieve truly extended turf growth and colour response. We have also found that the fraction needs to be complemented with an equal proportion of more rapidly released nitrogen to start the process close to the time of application.

This research went into the formulation of Fisons Greenmaster Super-N, a 24:0:0 + 2% Fe fine turf fertilizer of which 50% of the N is derived from

Golf Greenkeeping's Publishing Changes

Due to production difficulties, this issue of Golf Greenkeeping is a combined issue for the months of May and June.

Next month we will be issuing our usual combined July/August edition, followed by the September, IOG -Windsor Show Review.

Golf Greenkeeping will be maintaining its regular format of ten issues a year with a separate magazine for the month of December instead of combining with January

For those readers whose sub-

scription falls due at the end of this year an adjustment will be made to the renewal date.

To ensure you receive a regular copy of Golf Greenkeeping, the subscription is only £14.00 a year, postage paid to any address in the UK. Overseas rates on application.

Send cheque or postal order for £14.00, made out to Wharfedale Publications Ltd and send to - Subscriptions Dept. Golf Greenkeeping, PO. Box 12, Wetherby, West



News . . News . . News . . News .

Real turf for QPR's high-tech pitch

In a first time operation, the turf that has been grown in Yorkshire for First Division Football Club, Queens Park Rangers' new pitch, was harvested early in the morning, given a unique washing treatment and transported overnight in a refrigerated lorry for immediate laying in London.

The natural turf has been grown and intensively main-

tained for fifteen months by Rolawn Turf Growers. Over 9,000 square yards was washed to remove soil so that it can be laid direct on an allsand construction. Eve Leisure's Cellsystem incorporates an underground watering and drainage system that will ensure optimum playing conditions all the year

Fulford Golf Club gets the professionals' vote



In April, even after one of the wettest winters on record, members of Fulford Golf Club were able to enjoy excellent playing conditions. Meanwhile, more drainage work is under way to keep the course in the best possible condition.

The greens at Fulford Golf Club, near York, are the best of all the courses on the European circuit, according to a poll of the tournament players. The club itself gives much of the credit for the award to the continuous programme of drainage maintenance and renovation which it carries out.

Since 1971, Fulford has been the venue for the Benson and Hedges Championship, the longest running tournament at the same venue in Europe. Last year, asked to assess the courses on which the official European Tour events were held, the professionals gave Fulford's greens top marks in company which included such names as Muirfield, Wentworth and Royal Birkdale.

Fulford opened in 1935, was reclaimed from heathland and scrub. Clay tiles were mainly used for drainage, with ash as backfill, although in some places ash was used on its own. In both cases, the drains were often only one foot deep. This system is constantly being renovated by the club, to maintain optimum playing conditions.

Like any golf club, Fulford has to have a drainage system which removes surface water as quickly as possible. To meet this need, the club now uses clay pipes from Henry Oakland of Escrick, at a depth of at least 2ft., back-filled with a minimum of 12in. of hard stone, and with falls wherever possible of around 1:20. Trenches are hand-dug by the greenkeeping staff. For laterals, 3in. pipes are used, feeding into 4in. or 6in. mains.

"We need a very free-draining system to get rid of surface water", explained John Gledhill. "Clay is a natural material - there is nothing like it for absorbing the water and drawing it out of the ground. Clay pipes do a good job for us".



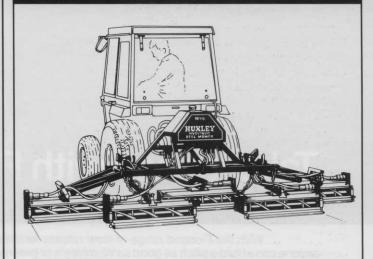
WASHED ROLAWN Britain's first automatic turf washer uses water from the river to direct high pressure, high volume jets to remove soil from beneath the Rolawn turves.

Rolawn's own specially built 'washing machine' washed individual square yard rolls, handling over 1,000 square yards a day.

QPR's new pitch, costing

£250,000, has been spot-levelled by laser and replaces the previous synthetic surface, condemned by other football league clubs.

Mowers for weight-watchers. Not weight-lifters.



Huxley Hydraulic Reelmowers for compact tractors prove that you don't have to be a heavyweight to be strong.

So, if your turf could benefit from a reduction in pressure, without a reduction in performance, please ask us to demonstrate.

We could save you pounds.



HUXLEYS GRASS MACHINERY THE DEAN, NEW ALRESFORD, HANTS SO24 9BL, ENGLAND Tel: 0962 733222 Fax: 0962 734702 on top, on turf Telex: 894426

Take it easy with Floranid. You need a lot With the Floranid range of slow release fertilisers, needs, when it needs it. It also means you use less Floranid anyone can afford a pitch as good as Wembley's or greens as for any given turf area. good as Wentworth's. Whatever your budget, you can treat Floranid's high quality granules spread more easily your turf with Floranid at about the same cost per square and settle well in the turf. They don't lie lumpily around on the metre as apparently cheaper fertilisers. surface waiting to be picked up with the mower. You need

This may surprise you if you haven't had the chance

The key is Floranid's slow release action. This

to take a closer look at Floranid, its high performance advan-

ensures that your grass consistently gets the nitrogen it

tages, and its comparative cost in actual use.

less mowing anyway. Floranid produces even growth without

but you still get all-year-round performance. That's a real sav-

ing in time and labour. And you don't have to worry about the

Usually, you only need to use Floranid twice a year,

the flushes that follow ordinary fertiliser applications.



weather when you use it. Floranid is resistant to leaching, reduces scorch risk, keeps grass growing for longer even in a drought, and helps bare patches recover beautifully.

Independent trials have proved Floranid is more efficient to use. The results are more satisfying. And it's more cost-effective than you think, whether it's on the village green or in the national stadium. That's why Floranid is Europe's most successful amenity turf fertiliser.

If you want a tough, well-rooted sward – packed with strong, even growth, attractive to look at, hard-wearing

to use, easy to look after – look into the Floranid range.

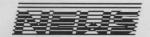
The facts make other fertilisers look expensive.

Floranid

Europe's top-selling amenity turf fertiliser.

BASF United Kingdom Limited, Lady Lane, Hadleigh, Ipswich. Tel: (0473) 822531.





News..News..News..News.

NEW ASSISTANT DIRECTOR AT BINGLEY

Following the retirement of Mr John Shildrick, Assistant Director of the Sports Turf Research Institute, the Board of Management have appointed, as their new Assistant Director (Research), Mr P. M. Canaway.

Mike Canaway joined the STRI in 1974 on a contract financed by the Department of the Environment to study wear and durability of sports turf. One of his first achievements was to develop a "wear machine" for simulating the effects of play in turfgrass experiments. The machine is capable of simulating different types of wear, including football, golf and abrasion as occurs on training, kickabout areas and parkland. The development of the wear machine had a major impact on the Institute's research programme. Also in the early period, Mike Canaway developed equipment for measuring the "grip" or "traction" available to players on turf and this is now incorporated in a draft British Standard for testing traction or friction on synthetic turf. Both the wear machine and traction apparatus were used in studies on wear tolerance of grasses, soils and nutrition during subsequent years. In 1981 Mike Canaway started a major programme of research on sand constructions for sport, the object being to provide a free draining playing surface and good playing conditions. In 1985 he was honoured to be asked to present the Keynote Address on soils and plant nutrition at the International Turfgrass Research Conference in Avignon, France. The work on sand rootzones has flourished, with research finance being obtained from the Royal and Ancient Golf Club, the Football Trust and the Football Association. Mike Canaway has been asked to lecture at various venues throughout the United Kingdom and he has published some 35 scientific papers on various aspects of his work at the Sports Turf Research Institute.

Mike Canaway is married with three sons and lives near Skipton in North Yorkshire where he is Secretary of Craven Speakers Club. His other interests include cross country running, gardening and hill walking.

New Reps for Ransomes



Michael Prentice

Michael Prentice 27, had previously been a service engineer with the well-known Maidstone based landscape contractor, Turfsoil.

On leaving school, Michael joined the Amenity Dept. of Kent County Council and attended the Mid-Kent College of Tecnology, where he gained a City and Guilds, with distinctions in horticulture and horticultural machin-

Until recently a member of the Territorial Army, he served in R.E.M.E. as a qualified vehicle maintenance engineer. During his 6 and a half years as a Territorial he visited Belgium, West Germany and The Netherlands.

Although rock climbing, in particular the sea cliffs at Swanage, is his main hobby, for two seasons he was the mechanic for a Formula Ford 2000 racing car team competing at Brands Hatch and Lydden.



Mark Radford

Following five years as an area representative with the well-known horticultural dealer Henton & Chattell, 33 year old Mr. Mark Radford has been appointed Ransomes grass machinery representative for the East Midlands and North East

Educated in Nottingham at Forest Fields Grammar School and Brackenhurst College of Agriculture, where he gained a City and Guilds in turfculture, Mark Radford's first appointment was Grounds Maintenance Manager with Trent Polytechnic in Nottingham. He subsequently had a spell with British Seed Houses where he was an area represen-

A dedicated supporter of Notts County Football Club, Mark Radford and his wife Carole live in Nottingham, where they are enthusiastic theatre goers.

QUALCAST SERPAR STRENGTHEN TECHNICAL SUPPORT

Qualcast Serpar have strengthened their technical support to the professional market by appointing a professional technical service representative. Serpar are the specialist group company handling service and parts for Qualcast Garden Products and Atco Ltd.

Barry Goodchild will be responsible for providing a full machinery after-sales service for the Atco professional range of products including the Gangmaster, Royale and Tractor

Before joining Serpar Barry was a marine engineer for ten years.



Barry Goodchild, appointed as professional technical service representative by Qualcast Serpar Limited.

Royal opening at Leeds Castle Golf Course

Her Royal Highness Princess Alexandra, patron of the Leeds Castle Foundation, joined Ryder Cup Captain and former Open Champion Tony Jacklin, when she formally opened Leeds Castle's re-designed golf course, last month.

Tony Jacklin was the star guest of a foursome to play the first round on Leeds Castle's 9hole golf course, which has been

re-designed by Neil Coles, with the creation of four new holes and new water hazards.

After lunch, Princess Alexandra walked through the Castle grounds and gardens.

During the afternoon Tony Jacklin held a golf clinic for a group of local players, who regularly use Leeds Castle golf



NEW MARK 200 CONTROLLERS FROM WEATHER-MATIC.

Weather-matic has announced the addition of a new commercial series of micro-processor controllers. The Mark 200 Series will offer designers a choice of 12, 18, 24 or 30 stations in a heavy duty housing. As on all Mark controllers, the 200 Series will feature a Day-Bright TM high intensity LED display for superior outdoor daytime visibility.

Programming the Mark 200 Series Controller is fast and easy with the function selector switch and four large, clearly labelled programming buttons. User training is minimal.

The LED display further aids programming by showing current time or pro-

gramme values. A choice of six or seven-day calendar programming allows for even-day, odd-day, or third-day watering. The dual watering feature provides two independent programmes with four daily start times each.

A start-up/back-up programme automatically provides two daily 5 minute watering starts on all stations in the absence of a specific programme. The back-up programme can be switched 'off' at the user's option.

A separate test programme permits the operator to run all P1 or P2 stations for 2 minutes each without disturbing previously programmed duration times. Additionally, the

test programme will skip stations that do not have programmed watering times.

The Mark 200 will 'stack' up to 7 start times. 'Saved' times which occur while the unit is watering will start after the programme in progress is completed.

A self-charging battery back-up system retains programmes and clock times in the event of a power failure. A 'short sensor' that detects shorted valves flashes an LED on the face panel and skips watering at that station as long as a 'short' condition exists.

Other standard features include 0 to 99 minutes timing at one-minute increments, a valve power switch to deacti-

vate stations without disturbing set programmes, and semi-automatic or manual start capability.

All Mark 200 Commercial Series Controllers feature a heavy duty transformer, industrial terminal blocks, built-in pump start and pump protection circuit in a heavygauge steel housing. The hinged cover has two side toggle latches and a cylinder lock. An optional pedestal mount is available.

Weather-matic manufacture a complete range of irrigation controllers, valves and sprinklers which are distributed and installed in the UK by Prime Waterman Limited, Wangford, Beccles, Suffolk NR34 8AX.

JACOBSEN!

HF-5 AND TRI-KING™ MOWERS

Here's the right combination for high quality cutting and trimming in parks and other council applications.

HF-5 Hydraulic Tractor/Mower

- 5 gangs with free floating 6- or 10-blade reels to follow ground contours
- 33 hp liquid-cooled diesel engine
- Lightweight (8 PSI ground pressure) but high capacity—mow up to 50 acres per day

Tri-King 1471

- 3-wheel drive for superior hill climbing
- Hydraulic reel lift for better productivity with less effort
- Hydraulic traction drive—no belts to slip or adjust
- Easy maintenance—easy access to engine, quick belt replacement
- Auto-type drum brakes for hill holding
- Choice of 5- or 10-blade reels, floating or non-floating for quality cut
- Isolation mounted engine for less vibration and noise

Jacobsen compact hydraulic mowers—part of a full line of Jacobsen equipment for parks, council and golf course maintenance: small and medium walk-behind mowers, riding rotary mowers, grooming tools, greens and fairway equipment, gang mowers, large turf tractors and special purpose vehicles. See them all. Call: King's Lynn (0553)763333.

JACOBSEN

DIVISION OF TEXTRON LIMITED Bergen Way, King's Lynn, Norfolk PE30 2JG

© Jacobsen Division of Textron Inc. 1988



Kubota Tractors for Turnberry



When George Brown arrived at Turnberry two years ago from Broom Park in Kent, he was faced with the situation of taking over a championship course which needed an equipment update.

The new owners - NITTO KOGYO of Tokyo were positive in their forward planning. Turnberry had to be, and remain, a major course and a continuing venue for the Open Championship.

Budget plans were agreed and a schedule of investment drawn up to meet the new owners commitment to the future of golf in Scotland.

Included in the schedule of investment was a requirement for two new tractors.

After looking at all available tractors and many years of practical experience, George was convinced that the ideal golf course tractor was in the 30-35hp mark, four-wheel drive, power steering and low PSI.

At SCOTSTURF '87 at Ingliston, George took the opportunity to take a close look at various tractors on the market. Attracted to the overall package Kubota had to offer, an

appraisal was made of the Company, its product range, and Dealer backup. Subsequently, a demonstration was arranged at Turnberry of Kubota products suitable for the course requirements.

These demonstrations led to the purchase of two Kubota L2850 tractors, one fitted with a back-hoe and loader.

AGRIMASTER® & AGRICROP®

Liquid Growth Stimulants

TIP THE SCALES IN YOUR FAVOUR

Two invaluable ingredients in one container! Farmyard manure PLUS seaweed make the perfect foliar spray for fairways, greens, sports & recreation grounds and all amenity purposes.

- **ENCOURAGES ROBUST, EVEN TOP GROWTH**
- TAKES UP LESS STORAGE SPACE
- LOWER OUTLAY

- IMPROVES ROOT STRUCTURE
- HIGHER NUTRIENT VALUES
- LABOUR SAVING

6 PINTS (3.4 LITRES) TREATS 1800 SQUARE

AGRIMASTER ® is a 100% organic formulation of manure and seaweed containing N[8-8%]PK, growth stimulants and a range of trace elements, all of natural origin.

AGRICROP ® has similar ingredients but with added nitrogen [19-5%]. Both products are available with extra iron.



ORGANIC FERTILIZERS LTD BLUE ROOF FARM, THROOP ROAD, THROOP BOURNEMOUTH, DORSET BHS 0DW Telephone: Bournemouth (0202) 532291 Telex: 418297 CHACOM G Telefax: (0202) 298676 Groups 2-3

R Registered Trademarks. Patent pending.



IoG's GOLDEN YEAR

Paradoxically the 43rd annual IoG Sports & Leisure World Trade Exhibition – which takes place at the Royal Windsor Racecourse, Maidenhead Road, Windsor, Berkshire from 20th-22nd September 1988 – is celebrating its Golden Jubilee!

The Exhibition was first held in 1938 (the war and its aftermath account for the seven lost years).

With demand for space up by a massive 25 per cent, this year's exhibition is now all set to be the industry's biggest ever event.

- * 388 exhibitors
- 46,000 square metres of stand space
- * 16,000 square metres of working demonstration areas
- * two covered pavilions
- exhibitors from 27 overseas countries.

To this must be added a record number of colleges which will be featured in the

extended Educational and Training section. They include:

Askham Bryan, Aylesbury, Berkshire, Cambridgeshire, Cheshire, Evesham, Lancashire, Merrist Wood, Oaklands, Pershore, Plumpton, Rycotewood, Somerset, South London, Sparsholt, West Sussex and Writtle.

Also joining them in that section, will be such bodies as the Agricultural Training Board, BALI South Thames Training, the City & Guilds of London Institute, Garden Machinery Association, National Playing Fields Association, National Turfgrass Council and the Sports Turf Research Institute.

The education displays will be supported by a programme of 18 mini-lectures covering such topics as Winter Games, Bowling Greens and Cricket Squares maintenance, which will be held in the Lecture Theatre.

JOHN SHAW OPEN DAY



Mr Andrew Darlow (TORO) demonstrating the 220D to Mr Seymour of Hastings Borough Council who is awaiting delivery of his 220D.

Although the recent J.S. Open Day did not enjoy the best of weather this did nothing to dampen the numbers nor indeed the enthusiasm of everyone concerned. In fact around 80 invited guests including Local Authorities, Greenkeepers and Groundsmen seemed to treat the weather with the contempt it deserved. No doubt because there was plenty of machinery on view to raise the spirits, not to mention the lunch which, once again, was splendid.

Several products were demonstrated including the Ground-master 220D a recent addition to the TORO stable. This 3 cylinder diesel engine machine is highly manoeuvrable and is fast gaining praise. The 52 in. or 62 in. rear discharge cutter decks which may be fitted, are an addition to the range and a unique

flotation system ensures improved ground following.

The Flagship of the TORO range the Reelmaster 450D was also on show. This high output all-hydraulic mower powered by a 50hp Mitsubishi engine with power steering travels up to 15mph and will mow up to 10.5 acres per hour, 5 or 7 bladed cutting cylinders are available and the heads can be either fixed or floating.

Within the TORO section of Lely the New Reform-Metrac 4wheel drive tractor unit has been added to the range as it will enhance and complement the existing TORO products.

The Metrac is a 38hp 4-wheel steer unit which is ideally suited for banks and difficult terrain work which can be fitted with flails or rotaries or any other front or rear mounted attachment.

KAWASAKI MEETS THE DEMAND



Readily identified by the twin headlamps mounted below the front carrying rack, the Kawasaki KLF220 is a very sophisticated machine available at the value for money price of £1,899 plus VAT.

Over the last few months, Kawasaki have been embarrassed by their KLF185 ATV – or rather by their lack of stock. For this well-proven work-horse has proved such excellent value for money that they had completely sold out, while still waiting for the replacement model.

The good news is that the new model (pictured) not only still provides superb value for money (it retails for £1,899 plus VAT), but also incorporates many worthwhile advantages.

The enlarged engine capacity gives a worthwhile boost in torque to this reliable four stroke engine, which retains both electric and recoil start systems. The KLF220 retains independent swingarms with dual shock ab-

sorbers for the front suspension, but at the rear there is now Kawasaki's refined Quad-Link system that offers a progressive, rising-rate action. Previously, stopping was via a single rear drum brake, now this is supplemented by drum brakes for each of the front wheels.

The new styling is practical as well as attractive: twin headlamps provide a wider spread of light than the original single unit.

Features that remain unchanged include the five speed gearbox with automatic clutch and reverse gear, shaft final drive, and the use of a vibration-reducing balance shaft in the well proven engine.

HYDRAULIC LIFT VERSION OF ATCO **GANGMASTER**

Hydraulic lift is now available on all four versions of Gangmaster, the PTO belt driven gangmower made by Atco.

For ease of operation the user will now be able to lift the cutting heads automatically without having to leave the cab, particularly useful when moving from one cutting site to another.

There are four versions of the Atco Gangmaster. It is available with either 5 or 3 cutting heads and overall cutting widths of 138 inch and 83 inch respectively, and with either fixed or floating

Special features on the Gangmaster include a belt driven system, operated from the tractor's power take off, designed to provide constant cylinder speed in all conditions with the added advantage of avoiding expensive damage if a hidden object is hit - the V belt will simply 'slip'.



For further information contact: David Woolridge, Marketing Manager, Atco Limited, Suffolk Works, Stowmarket, Suffolk IP14 1EY. Tel. (0449) 612183, or Peter Evers/Karen Green, Edson Evers & Associates, Public Relations Consultants, Priory House, Friars Terrace, Stafford ST17 4AG. Tel. (0785) 55146.

BROUWER 5 GANG MOWER



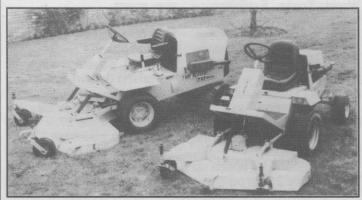
One of the Brouwer range of trailed gang mowers.

The Brouwer range of turfcare machinery has a first-rate reputation for quality and reliability and the latest tractor mount reel mower is loaded with exciting new features and options. Golf Course models are available, delivering a fine cut.

The Golf Course model is fitted with floating heads to cope with .5 inch fine cut to 2 inch rough cut. No lengthy adjustments are needed, just a flick of a lever. Optional brushes are also available which virtually eliminate tractor tracks from fairways.

The most outstanding features of the new lightweight mower include simple one man 5 minute operation to detach the rear mowing units and release the tractor for other duties, full 5gang operation with 4-gang and 3-gang modes for tight spots, simple bedknife to reel setting via one adjustment bolt, fourwheel drive traction, hydrostatic transmission and finger-tip controls for easy raising and lowering of cutting units or for transportation.

TURFBLAZER OUT FRONT MOWERS LAUNCH IN GREAT BRITAIN - NEW RANGE NOW AVAILABLE FROM ISEKI U.K.



The Turfblazer range of out-front professional mowers is now available in Britain with cutting widths from 1.5 to 4.5 metres wide.

The Turfblazer range of out front mowers manufactured in America by Howard Price Turf Equipment is now available in Great Britain from Iseki U.K., giving a wide variety of cutting widths in both rotary and cylinder forms from 1.5 to 4.5 metres wide.

Three models are initially being imported by Iseki with power outputs from 22 to 78 horsepower, all hydrostatically driven and with 3 or 4 cylinder water cooled diesel engines.

The smallest of the models is the 22 horsepower Turfblazer 422 with a choice of 60" or 72" wide rotary cutting decks with options of snow blowers or front mounted brushes. The decks themselves are offset for close trimming and feature quick change height adjustment from 1.5 to 4.5 inches. All Turfblazer decks have front mounted flotation wheels for perfect contour following.

The result is a quality mower that is economical, versatile and dependable. Turfland Professional, sole UK distributors of the Brouwer range of machinery, provide a first-class spares facility and back-up service through their nationwide team of representatives. This expertise, added to the reliability and dependability for which the Brouwer range has become renowned, means that the customer has at his disposal a complete package that is second to none.

Moving up the scale is the Turfblazer 727 with its 27 horsepower engine, hydrostatic drive means the operator can vary ground speed independent of engine rpm, whilst the simple two pedal control gives instant forward or reverse. On the 727 is the option of an 84" cylinder mower in three gang configuration or a five gang set up for mowing up to 130" wide on the 40hp power unit. All the cylinders are available in either 6 or 8 blade form for cutting heights from 3/8" to 2 3/8". Verticut blades are also available as an

Finally, Iseki will be doing selective trials and demonstrations this year with the mighty Turfblazer 180, a 78 horsepower 4 cylinder diesel engined machine allowing rotary cutting up to 14 feet wide in one pass. The hydrostatically driven machine with hydraulically folding wings is capable of cutting up to 50 acres per day in either rotary or cylinder form.

Commenting on the introduction of the new Turfblazer range, Colin Gregory, Iseki's Sales Director, said "We took a long time deciding on a range of out front mowers. Turfblazer is well respected in America and we feel this range offers the professional operator a choice of cutting widths, plus excellent economy and durability. We'll be only too pleased to show the Turfblazer range to you and demonstrate why we believe it offers so much"

Further details are available from Iseki U.K. on 0480 218100.

New British Triplex to Hit the Golf Market

A new greens mower has been announced by Huxleys Grass Machinery, the Hampshire based family company at Alresford, known best in this country as the main Cushman dealers.

The independent British firm, headed by Ted Huxley and his two sons, have had the machine under wraps for some time to ensure that the principal requirements demanded by greenkeepers were met.

It is a no frills machine, easy to use, quieter than other diesels, economic in running costs, there is a first class service and parts back-up, and the machine has front wheel drive and rear steer-

The white painted triplex, designed by a team of engineers under the direction of Ed Fox, will be priced at around £10,000 when it goes into full production prior to being launched at the IOG Windsor Show in Septem-

In a market dominated by Jacobsen, Toro and Ransomes, the Huxley Three 58, so called because of the three cutting cylinders and the 58 inch cutting width, is powered by a Kubota diesel engine.

From tests carried out on a number of golf courses in the south of England it is said to use only 1.6 litres an hour in fuel, which, compared to the petrol engines of other machines can save a golf club around £500 a year in running costs.

The Three 58 has hydrostatic drive with separate pedals for forward and reverse, stopping by easing off the drive pedal. Cutting speed is around 3 mph at 180 cuts per yard, with a top travelling speed between greens of 8.5 mph.



The Huxley Three 58 Greensmower A full report on the Huxley Three/58 will appear in the July/August

LLANDUDNO (Maesdu) GOLF CLUB Ltd.

Urgently require an ambitious, enthusiastic and experienced

HEAD GREENKEEPER

with course management qualifications.

The golf course is mainly meadowland with a few holes of links texture. Approximately 100 acres. SSS 73.

Remuneration by negotiation.

No accommodation available but assistance will be given in relocation.

Applications together with full C.V. to:

THE SECRETARY LLANDUDNO (Maesdu) GOLF CLUB Ltd. HOSPITAL ROAD LLANDUDNO **GWYNEDD** N. WALES LL30 1HU

Turf who



FOR SPORTS SURFACES FOR BOWLING GREENS FOR AMENITY AREAS

The solution to your "green" problem.



The country's leading turf nursery.

Nurseries in the prime grass-growing counties in England

Head Office: Turfland, Dutton, Warrington, Cheshire, WA4 4LL. Tel. (0928) 719336 (6 lines)

CAME DOWN GOLF CLUB

Require a

HEAD GREENKEEPER

Applicants should be capable of maintaining high standards on this 18 hole course and of leading and motivating a team of three assistants.

They must be experienced in all aspects of greenkeeping and have a thorough knowledge of modern equipment.

No accommodation available.

Please apply in writing to:

THE SECRETARY
CAME DOWN GOLF CLUB
DORCHESTER
DORSET DT2 8NR

Head Greenkeeper

Scale 5, £9,780-£10,665 inclusive

Required at our Hounslow Heath Golf Course to head a small team.

You must have experience of fine turf work and be able to identify turf pests and diseases.

Familiarity with the use of chemicals and competence in spraying methods are essential as is a knowledge of the use of plant and machinery.

plant and machinery.
You must be able to undertake physically demanding work and hold a valid driving licence in order to drive a tractor from the course to the depot for maintenance purposes.

For an application form telephone 01-572 5513 (24 hour answer service) quoting ref: LS/08/25 or write to the Director of Leisure Services, Civic Centre, Lampton Road, Hounslow TW3 4DN. Closing date 1 July 1988. Job Sharers Welcome



An Equal Opportunity Employer

GOLF GREENKEEPING
the most widely distributed golf
course management magazine
in Britain
Our Appointments Section
produces quality responses for
all levels of Greenstaff

Telephone: 0937-63181

COTTESMORE GOLF & COUNTRY CLUB

Require

A FIRST ASSISTANT GREENKEEPER

and

A GREENKEEPER/ TRACTOR DRIVER

Apply in writing with full C.V. to:

THE SECRETARY
COTTESMORE GOLF & COUNTRY CLUB
BUCHAN HILL
PEASE POTTAGE
CRAWLEY
SUSSEX RH11 9AT

WILLESLEY PARK GOLF CLUB

Invite applications for the post of

HEAD GREENKEEPER

Applicants should be fully experienced in all aspects of greenkeeping including machinery maintenance and be capable of controlling and motivating staff.

No accommodation available but assistance given towards any removal expenses.

Salary negotiable depending on age and experience.

Please apply in the first instance to:

THE SECRETARY
WILLESLEY PARK GOLF CLUB
TAMWORTH ROAD
ASHBY DE LA ZOUCH
LEICESTERSHIRE LE6 5PF

For application form

Position re-advertised

TRADE DIRECTORY

SMALL ADS IN THE TRADE DIRECTORY - £40 PER YEAR



ARTIFICIAL GRASS

Record Playground Equipment Ltd. Beach Works, Canal Road, Selby, N. Yorks Tel: (0757) 703620

AstroTurf Artificial Grass, PSA Ltd., Vorda Works, Highworth, Swindon, Wilts. SN6 7AJ. Tel: (0793) 764301. Telex: 449703. Fax: (0793) 765319. Contact: David Stoker.

The Greensward Company, The Old Hall, Langham, Oakham, Rutland, Leicestershire LE15 7JE. Tel: Oakham (0572) 2923 & 56031. Telex: 34362 Greeco G.

P.N. Structures Ltd., 5 Vigo Street, Piccadilly, London, W1X 1AH.
Tel: 01-734-2578. Design ,supply and installation of a completely artificial grass system, specifically tuned to golf greens and tees.

CONSULTANT AGRONOMISTS

Martyn T. Jones, Consulting Agronomist in Landscape and Amenity Turf Culture, 41 Pennine Way, Great Eccleston, Preston, Lancs, PR3 0YS, Tel: (0995) 70675.

CONTRAVATING AND BRILLION SERVICE

Boughton Loam Ltd., Boughton Quarry, Boughton, Northampton.

Suppliers of Loams, Sports and Horticultural Dressings.

DRAINAGE TUBES AND PIPES

W.T. BURDEN LTD., Wellsway, Keynsham, Bristol.
35mm to 300mm PVC Land Drainage Pipe, Polythene Water Pipe,
UPVC Pressure Pipe and Fittings, Soil Stabilisation Fabric and all
Drainage, Building, Civil Engineering Materials, delivered from eleven depots. Tel: (02756) 4761. Contact: Don Wakley

FERTILIZERS & TOP DRESSINGS

Fisons plc., for the comprehensive turf fertilizer range, and both bagged and bulk peat and peat/sand top dressings, delivered nationwide.

nationwide.

Professional Horticulture Department, Paper Mill Lane, Bramford, Ipswich, Suffolk IP8 4BZ. Tel: Ipswich (0473) 830492.

"Maskells" for Comprehensive Range of Fertilizers in Granular, Powder and Liquid form, Bagged and Bulk Peat(s), Pulverised Bark(s), Turt Dressings, Soils, Sands, Composts delivered U.K. Tel: (01) 476 6321. Contact: Maskells Golf Course Department Stephenson Street, London E. 16. Quotations by return.

Boughton Loam Ltd., Boughton Quarry, Boughton, Northampton. Tel: (0604) 847814.

Suppliers of Loams, Sports and Horticultural Dressings.

FUNGICIDES

Fisons plc., for Turfclear combined turf fungicide and worm cast control and Filex against Pythium and Phytopthora. Professional Horticulture Department, Paper Mill Lane, Bramford, Ipswich. Suffolk IP8 4BZ. Tel: (0473) 830492.

GOLF CLUB SIGNAGE

WOODBLAST SIGNS, Lower Standen Hey, Whalley Road, Clitheroe, Lancs. BB7 1PP. Tel: (0200) 22156.
Signage with a difference. Quality, plus distinctive and unusual character. Tee signs showing hole layout. Prestige entrance signage with club name and golfer silhouette. Information and directions tion signs, etc. etc. COLOUR BROCHURE

GRASS MACHINERY RANSOMES DISTRIBUTORS

Burrows G.M. Ltd., Wigan Road, Leyland, Lancs. PR5 2UE. Tel: (0772) 421778. Contact: Mr. J.K. Sutton.
Burrows G.M. Ltd., Spring Slade Works, Cannock Road, Stafford. Tel: (0785) 661131. Contact Mr. J. Guest.

Henton & Chattell Ltd., London Road, Nottingham, NG2 3HW

W. Mountain & Son Ltd., Bank Avenue, Morley, Nr. Leeds. Tel: (0532) 531201-6. Contact: A.C. Mountain.

Rowes of Chichester, D. Rowe & Co. Ltd., The Hornet, Chichester, West Sussex PO19 4JW.
Tel: Chichester (0243) 78810. Telex: 86110.

Contact: D. Strange or J. Burfoot. W. Wilcock & Sons (Preston) Ltd., Walker Street, Preston, PR1 2PR. Tel: Preston 53068

GRASS SEED

BRITISH SEED HOUSES LTD., Bewsey Industrial Estate, Pitt Street, Warrington, Cheshire WA5 5LE. Tel: (0925) 54411. Portview Road, Avonmouth, Bristol, Avon. Tel: (0272) 823691 Camp Road, Swinderby, Lincolnshire. Tel: (052286) 714. David Bell Limited, Eastfield Industrial Estate, Penicuik, Midlothian Tel- (0968) 78480

Mommersteeg International, Station Road, Finedon, Wellingborough, Northants NN9 5NT.

Tel: Wellingborough (0933) 680674. Telex: 311234.

IRRIGATION EQUIPMENT

Cameron, St. Richard's Road, Four Pools Industrial Estate, Evesham. Worcs., WR116DP. Tel: Evesham (0386) 49341 Telex.

334141.

Wright Rain Ltd., Flordon Road, Newton Flotman, Norwich, Norfolk, NR15 10X. Tel: Norwich (0508) 470402. Telex: 975015.

Wright Rain Ltd., Bank Head, Medway, Sighthill Industrial Estate, Edinburgh, Scotland EH11 4BY. Tel: (031) 453 4789.

Wright Rain Ltd., Unit 3D3, Thorp Arch Trading Estate, Boston Spa, Wetherby, Yorks. LS23 7BJ. Tel: Wetherby (0937) 845788.

Cameron Irrigation, a Division of Wright Rain Ltd., Harwood Industrial Estate, Littlehampton, West Sussex BN17 7BA. Tel: (09064) 3985. Telex: 877483.

Par 4 Irrigation. Ash Grove Industrial Estate, Ash Grove, Ripon,

Par 4 Irrigation, Ash Grove Industrial Estate, Ash Grove, Ripon, N. Yorks. Tel: Ripon (0765) 2175.

Supply, installation and servicing on automaric irrigation systems.

Contact: E.B. Simms or L. Oyston.
Sports Ground Irrigation Co., 'Hereward Lodge', Paget Road,
Lubenham, Market Harborough, Leics. Tel: (0858) 63153.
T. & G. Turf Irrigation Services, 8 Whitcliffe Grove, Ripon, North

1. & G. Turl Tirgation Services, 8 Whitcline Grove, Hippon, North Yorks. Tel: (0765) 2941. Golf Course Irrigation Contractors. Vibratory Moleplough and Tractor Winch For Hire. Contact: R.N. Glover or T. Teggin. Toro Irrigation Services Ltd., Unit 7, Millstream Trading Estate, Christchurch Road, Ringwood, Hants. BH24 3SD. Tel: Ringwood

Watermation Ltd., Monument Way East, Woking, Surrey GU21 51.Y. Tel: Woking (04862) 70303. Supply and installation of golf course irrigation. Turf Irrigation Services Ltd., Betchton, Sandbach, Cheshire. Tel:

Suppliers and installers of automatic irrigation systems. Contact: R.M. Hume

Contact: H.M. Hume.
Flanderblade Ltd., 20, Whiteacre, Littlehampton, West Sussex,
BN17 7JA. Tel: (0903) 724545.
Supply and installation of Automatic Irrigation Systems.
Prime Watermen Ltd., Wangford, Beccles, Suffolk NR34 8AX.
Tel. Wangford (050 278) 481
Telex: 975731 Prime G.

LIQUID ORGANIC FERTILIZER

FARMURA LTD., Stone Hill, Egerton, Nr. Ashford, Kent. Tel: (0233) 76241. Contact: Jonathan Harmer.

NAMEPLATES & PLAQUES

Thos. A. Ingram & Co. Ltd., P.O. Box 305, 68 Soho Hill, Birmingham B19 1BB. Tel: (021) 554 4576. Full Colour Brochure Available (Commemorative Plaques, Seat Plates, etc.)

FISONS plc., for good clean sedge peat, bagged and bulk, delivered nationwide, Sphagnum bales bagged and bulk also supplied. Professional Horticulture Department, Paper Mill Lane. Bramford, Ipswich, Suffolk IP8 4BZ. Tel: Ipswich (0473) 830492.

PEAT — BULK

Banks Horticultural Products Ltd., 36 High Street, Market Harborough, Leics. Le16 7NL. Tel; Market Harborough 64346

PEST CONTROL

A. & R. Fairway Pest Control. We offer consultancy, on site staff training, service and materials, tailored to meet the requirements of the golf course industry. Is anything harming your course? Phone: (0654) 710128 (24 hour service)

MOLES VANISH—"KILMOL"—Mole bait makes certain. A safe and effective method (not Strychnine) £7.50 Packs—1/2 acre (approx.) £19.25 Pack—3 acres (approx.) (inc. P & P). CALLISTO AVIARIES (G), Lapley, Stafford ST19 9JP. Tel: (0785) 840366.

Joseph Arnold & Sons Ltd., Billington Road, Leighton Buzzard. Bedfordshire LU7 8TW. Tel: Leighton Buzzard (0525) 372264. Contact P.R. Windmill.

Dunlop Sports Sands — Tilcon Special Products, Manchester Road, Congleton, Cheshire CW12 2LU. Tel: (0260) 275214. Sand for top dressing and bunkers.

Contact: Mr. Joe Steed.

Martin Bros. Ltd., 1A Clifton Street, Alderley Edge, Cheshire SK9

Boughton Loam Ltd, Boughton Quarry, Boughton, Northampton. Tel: (0604) 847814.

Suppliers of Loams, Sports and Horticultural Dressings.

Bunker Sand Sale. Ring Grant Gordon on 0375 – 858844...
Star Group, Star House, Linford Road, Chadwell St. Mary. Grays,

SEMI-MATURE TREES

Eastcote Nurseries (Solihull) Ltd., Wood Lane off Barston Lane, Solihull, West Midlands B92 0JL. Tel: Hampton-in-Arden (06755) 2033/2034. Contact: Michael Fisher.

SEMI-MATURE TREE PLANT & LIFT

EQUIPMENT FOR HIRE
Eastcote Nurseries (Solihull) Ltd., Wood Lane off Barston Lane,
Solihull, West Midlands B92 0JL. Tel: Hampton-in-Arden (06755) 2033/2034. Contact: Michael Fisher.

SOIL CONDITIONERS

SOILIFE: Liquid enzymes. ROMILT MARKETING for your local supplier: North Wyke Farm, Guildford Road, Normandy, Surrey GU3 2AN. Tel: Guildford (0483) 811933.

SOIL STERILIZERS, SIFTERS &

SHREDDERS
Terra Force, Kent Horticulture Engineers, Prospect Place, Tonbridge Road, Wateringbury, Kent ME18 5NY, Tel: Maidstone (0622) 81387 Telex: 965222 Contact: John Brough

SPRAYING EQUIPMENT

Evers & Wall Ltd., St. George's Way, Bermuda Industrial Estate, Nuneaton, Warwickshire CV10 7QT. Suppliers of Hardi Knapsack, Powered and Tractor Mounted Sprayers. Enquiries for Specials welcomed.

TEEING GROUND AREA MARKERS

TACIT-T-MARKERS, 3 Millers Lane, Monks Kirby, Rugby CV23 ORJ. Tel: (0788) 832166. If you have prepared the best Tees, we have the best Teeing Ground Area Markers. Also customised tees for that special golf day

TOP DRESSINGS — BULK & BAGGED

Boughton Loam Ltd., Boughton Quarry, Boughton, Northampton,

Tel: (0604) 847814.
Suppliers of Loams, Sports and Horticultural Dressings.
Fen Turf Dressings Ltd., 36 High Street, Market Harborough,
Leics. LE16 7NL. Tel: Market Harborough 64346.

TORO & ISEKI SALES & SERVICE

County Mowers, Toro Sales and Service, Main Street, Thorner, Leeds LS14 3DX. Tel: 0532-892627. Contact: David Birdsall D. & J. Needham Ltd., Toro and Iseki, Sales, Service and Parts. (24 hr. Datapost service). Darlington Road, Middleton-St-George, Darlington, Co. Durham DL2 1LH. Tel: (0325) 332991. Contact: Needham or M. Grange

TREES, SHRUBS & PLANTS

Notcutts Nurseries Ltd., Woodbridge, Suffolk IP12 4AF. Contact: John Dyter, NDH. (Tel: 03943-3344).

Also incorporating Waterers Nurseries, Bagshot, Surrey.

T. Hilling & Co. Limited, Chobham, Woking, Surrey. Tel: (099 05)

7101. Contact: Mr. G. Taylor.

Taylor Trees, Cliffe House, Gt. Harwood, Blackburn, Lancs. All types from 25p each. Ring for details. Tel: (0254) 884563. Contact: Bob Felton, Sales Manager.

TREE TIES & GUARDS

Toms Tree Ties, (J. Toms Ltd.), Wheeler Street, Headcorn, Ashford, Kent. Tel: Maidstone (0622) 8911111.

TRENCHING MACHINES

A. F. Trenchers, Gosbecks Road, Colchester, Essex, CO2 9JS.
Tel: (0206) 44411. Purpose built new, reconditioned or self-drive hire trenchers for all your drainage, irrigation, water and power supplies. Contact: Bill Baker.

supplies. Contact: Bill Baker.

LD. Bourgein Oxford Ltd., Economical, high speed, narrow trenching. Sales or hire nationwide or we supply our own Mobile Trenching Service with operator. Contact: Roger Bourgein, South Hinksey, Oxford OX1 5BR Tel: (0865) 735420. Telex: 83147.

TURF

J. Brailsford, Thrang End Farm, Yealand, Redmayne, Carnforth. Telephone: (0524) 781952. Turf suppliers to the Trade for 30 years of all types.

TURF (SPECIALITY)

Fine purpose grown sports and amenity turf.

ROLAWN (TURF GROWERS) LTD., Elvington, York, YO4 5AR. Tel: (0904) 85661. Telex: 57796. Rolawn G.

VERTI-DRAIN HIRE Ross Oliver, Greens Verti-Drain Hire, 'Greystones', Trebudan-non, Newquay, Cornwall. Tel: St. Columb (0637) 880257. Brian D. Pierson (Contractors) Limited,

27 Vicarage Road, Verwood, Wimborne, Dorset BH21 6DR. Tele-

phone: (0202) 822372

WATER STORAGE

Miline, Elan (Liquid Storage), Station House, Eye, Leominster, Herefordshire HR6 0DT. Tel: Leominster (0568) 3697. Contact: Michael D. Cocket. Suppliers of Water Tanks for Golf

Specialised suppliers and installers of Liners for ornamental ponds, lakes and reservoirs.

Turf Irrigation Services Ltd., Betchton, Sandbach, Cheshire. Tel:

(04775) 255. Suppliers and installers of automatic irrigation systems. Contact: R.M. Hume & D.W. Evans.

WEEDKILLERS

FISONS plc., for Tritox, selective turf herbicides, Herbazin total herbicide range and Greenkeeper Extra. combined weed and feed for turf. Professional Horticulture Department, Paper Mill Lane, Bramford, Ipswich, Suffolk



Complete Turf Technology



3.5 & 7 Gang P.T.O. Mowers Hyd. & Manual Lift





Large Capacity Brouwer-Vac





7-Gang/Fairway Hyd. Lift Mower



Turf Rollers Models 230 & 130

TURFLAND PROFESSIONAL EQUIPMENT offer a comprehensive range of BROUWER Turf Care machinery, including REEL MOWERS, VAC's, TURF CUTTERS, LAWN RENOVATORS, TURF ROLLERS, and many more products to meet your requirements. Each with a host of features including excellent manoeuvrability for ease of operation, low cost maintenance and versatility for greater cost efficiency.

Contact Janet Watmore for full information of the product range or to arrange a demonstration.



Dutton, Warrington, Cheshire WA4 4LL.

Tel: (0928) 719336 (6 lines)