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### REPLACE THEM WITH TORO, THE TOP PEOPLE'S CHOICE!

Ask your Head Greenkeeper if he's totally happy with the performance and reliability of the sprinklers around your course. If there are doubts, call your nearest Toro Distributor for helpful professional advice. He will show you the range of Toro geardriven sprinklers designed especially for golf course watering. He will tell you just how technically superior they are – how they can improve watering efficiency and just how simple it is to improve your existing system.

Top people's choice? You'll find Toro Sprinklers watering the sacred turf of St. Andrews, Centre and No. 1 Courts, at Wimbledon and the pitch at Wembley Stadium...



### 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 Terralift 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 Terralit was called in to "open up" the clay subsoil with very good results.

"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, seaweed meal and Alginure. The Terralift 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 Creeping Pont on the gracene and Penne-

This superb course has been sown down with Penncross Creeping 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

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 construction and 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



## 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 aroup 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 Humphreys. "Rhone-



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.







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.

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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, a 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 requirements.

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 IBDU'.

#### 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 1989.

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 Yorks.



# 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 round.

### 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.

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We could save you pounds.



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# 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 machinery.

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 England.

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 representative.

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 ranges.

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 course.



# 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 programme values. A choice of six or seven-day calendar programming allows for even-day, odd-day, or thirdday 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 deactivate 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, builtin 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.



### HF-5 AND TRI-KING" MOWERS

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■ 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

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- 3-wheel drive for superior hill climbing ability
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- Easy maintenance easy access to engine, guick belt replacement
- Auto-type drum brakes for hill holding
- ability
- Choice of 5- or 10-blade reels, floating or non-floating for guality 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.



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