HYDROMANIA!

"It was his last wish to have everything done with the HYDROMAN!"
This Issue

JUNE 1983

Front Cover: Built in a record 80 days, starting last July, Belmont Golf Course is set to become a major tournament venue. Opened in style by Sean Connery and Mickey Walker on May 30, Belmont is already scheduled to host the 1983 Midland Professional Matchplay Championship in October. Some 220 acres of beautiful Wye Valley park, river meadow and woodland have been sculptured into a magnificent 18 holes. Generous use of aggregate under greens and tees, together with Sportsground Irrigation's top Rainbird sprinkler systems to tees, greens, approaches and central fairways, will ensure all-year-round playability and ease of maintenance.

GOLF IS A GAME OF OPEN SPACES 5
Jim Arthur discusses this oft-forgotten fact...

SPOTLIGHT ON... 7
John Campbell looks at Lloyds of Letchworth

TURF TOPIC 11
Prevention is better than cure on a golf course

NOTEBOOK 17
Topics of interest to all greenkeepers

BUYERS' GUIDE 22

APPOINTMENTS 23

Publisher: A. Quick & Co Ltd
Managing Director: Michael Coffey
Editor: Robin Stewart
Advertisement Manager: Kay Moss
Contributors: Jim Arthur,
John Campbell, Fred Cox, Eddie Park
Frank Pennink, Donald Steel

All advertising matter, editorial copy and correspondence should be sent to:
Greenkeeper, 121-123 High Street,
Dovercourt, Harwich, Essex CO12 3AP
Tel: 025 55 7526

Subscription rates:
UK—£10 Continent and USA—£17.50
Eire—£15

Greenkeeper is published ten times a year.
Printed in England by J.B. Offset, Marks Tey,
Colchester, Essex.
Copyright: A. Quick & Co Ltd 1983

STRI announces more cash for research

Michael Coffey heard this good news at a recent Press day.

ALTHOUGH many interested parties visit the STRI, this was the first time it had welcomed the Press to Bingley. At the gathering, the institute’s director Dr Peter Hayes announced substantial research grants.

The grants are from two main sources—namely, a £90,000 grant over three years from the Department of the Environment, commencing May 1983, to look into ‘cultivars of perennial ryegrass for low maintenance amenity and recreation provision,’ i.e. to assess turf-type cultivars (varieties) of perennial ryegrass for areas where mowing needs to be reduced to the minimum. Trials will not only be carried out at Bingley but also on areas to be made available and maintained by local authorities.

The other project, on ‘amenity grasses for derelict inner city areas,’ will include close co-operation with the operation groundwork team at St Helens.

The second grant, which will run to a six figure plus sum over a four-year period, is from the Sports Council and for research into ‘development of standards for playing quality of natural turf sports surfaces.’ The objects of this are to clarify the performance factors needed for individual sports, to develop and test equipment for qualifying natural turf playing characteristics and to apply these to the field situation.

The STRI hopes to receive other substantial grants over the next few months.

These grants are in addition to the £5,000 from the Football Association and a covenant of £1,000 per annum net over four years from the Royal and Ancient, which was announced by the STRI in its last bulletin.

Congratulations, then, to Dr Hayes and his team, especially assistant director John Shildrick, who is in charge of the research plots, for generating this much-needed funding when the institute’s research programme was approaching a low level.

I suspect, too, that the institute is fortunate to have such an enthusiast as John Tanner—its board of management chairman. A local businessman and representative of the Football Association on the Bingley board, his involvement and commitment is obvious.

All this is to be welcomed, both for the STRI and the turf industry generally, as a strong Bingley, both in advice and finance, can do nothing but good.

However, from the industry’s point of view, I find it most disappointing that, with the largest number of representatives on the board, nine from all the golf unions and golf development councils, and since golf through the R&A was instrumental in setting up the original Board of Greenkeeping Research (See Greenkeeper, September 1982), it contributes the least to the research programme.

I do not blame anybody in particular, but it is significant that originally the funds came from many golf clubs, paying a guinea a year towards the cost of research—a valuable sum in 1920.

Golf has many problem areas in turf management—including disease control—and construction techniques that would benefit from independent research rather than informed opinion. So, once again the need is highlighted for all those involved for the best of commercial reasons, whether they be greenkeepers or the trade, to come together and raise a worthwhile sum, at least matching the R&A, for the benefit of all.

Many companies make individual contributions to the institute’s research fund, but Dr Hayes says that no commercial research project would ever be turned away by the institute as it always publishes the findings in the institute’s journal.

Who will start the ball rolling?
Up to eight weeks free from mowing whilst ensuring that the grass root system remains strong and healthy!

This the new standard of grass growth control that you can achieve with Mowchem. Where mowing is difficult or where a high level of maintenance is necessary, one simple spray of Mowchem can save many hours of labour which can be used to do other essential work.

Ask your May & Baker distributor for more details or contact us direct: Telephone 0277 230522 and ask for Environmental Products Department. We will even help you with a detailed cost-benefit comparison on your own operations.

THE NEW-GENERATION GRASS GROWTH REGULATOR THAT CUTS THE COST OF MAINTENANCE RIGHT DOWN!

New from

M&B May & Baker

Mowchem has clearance for application to a limited acreage under the Pesticides Safety Precautions Scheme. Mowchem is a trade mark of May & Baker.
Golf is a game of open spaces

WHILE the quality of a course may well be measured by the excellence, or otherwise, of its greens, three quarters of the shots on a par round being into or on the putting surfaces, its character derives from the nature of the fairways and rough. It saddens me to see how many of our inimitable heathland and links courses have been ruined as much by neglected management as by being farmed.

A century ago, most courses were laid out on natural, slow-growing, open heathland or unspoilt wild links and most, if not all, 'mowing' was by rabbits and sheep. The results were all too predictable and give the lie to those who would suggest that all was perfection in the past and all our troubles are today's. I would be the first to agree that nearly all fairway problems are self-inflicted, but we should not deceive ourselves into thinking that pre-war conditions were anything other than what today would be regarded as intolerable. Fairways were often a mass of rabbit scrapes, cuttings are returned with gang-grossly over-fed turf.

I have just returned from a tour of Dutch clubs. Needless to say, since I have been advising them, no fertilisers of any kind have gone on to their fairways and all are rapidly returning to excellent fine turf. Generally, to everyone's delight, nearly pure fine fescue has returned. The only areas marring this excellent change from annual meadow grass dominated, trouble-prone, pampered turf are the old and new rabbit scalds. In my book, rabbits are four-legged fertiliser salesmen. It is not so much the actual scrape as the effect of the locally high NPK application. Immediately, grasses that can hardly be seen in the adjacent fine turf invade and annual meadow grass and even perennial ryegrass take over from the finer grasses. This effect lasts long after the rabbits have been eliminated and the scalds disappeared, except for the lush unsusightly patches.

It is interesting to note that this problem of altering the natural ecological balance (since fine fescues and bents are adapted to very low fertility levels, too low to support annual meadow grass) is echoed in England. Dr John Raby, who first pointed this out, was always keen to stress the importance of the old 'advisers' of fertiliser companies, who advocated fertiliser treatment on the small in-bye meadows that provided the hay for the house cow.

Many of these small hill farms cannot support a man full-time and most 'farmers' have other occupations—mining, fishing, etc. What happened? The fine, wiry, easily cured hay was increased in yield, but the fine grasses were replaced by leafier species, especially Yorkshire fog and meadow grasses. To counteract this, slacking was advised. In came clover and with it a leafier hay, which simply could not be cured. To supplement the 'foisty' hay, concentrates had to be imported, which the farmer could not afford. In the end, rents could not be paid and the cottages and their 20 acres or less were deserted or converted into holiday homes. All this rural depopulation for the sake of a few tons of fertiliser!

No-one pretends intensive farming can be run without massive applications of concentrated fertiliser, though this is merely using the soil as a growing medium and problems in soil structure and health are now massive. But for golf we need no farming fertilisers.

Very thin sandy soils, generally those from which the humus has been lost and the drought resistant grasses replaced with annual meadow grass, may need help and here I have obtained excellent results over the last decade with Farmura—filtered cattle slurry. Once the fairways are safely restored to fine fescues and bents by aeration and building up the lost humus, e.g. with fenpeat (not sedge peat), they need little other help, except of course to anticipate leather-jacket attacks and to remove the earthworms encouraged by stupid liming or slacking carried out often many years ago on the basis of soil analysis, which showed unsurprisingly on heather-clad courses that the soil was acid. One of the manic theories propounded today is that we should be kind to earthworms.

If only soil analysts would compare their results with samples taken from the best area of any course and not on some arbitrary agricultural standard, they would be surprised and might learn, since the best turf almost always shows 'worse' analysis results than the problem areas!

It is on the question of the management of the rough that so much controversy arises. Conservation is essentially management and not just preservation. If nature is left to her own devices, none of our golf courses would be recognisable in a few years. Seeding trees must be rigorously culled—especially such self-sown weeds as birch, pine and sycamore. Existing scrub growth must be cleared to improve light and air and permit full use of tees, obstructed by encroaching trees.

I always try to pull out ten seedling pines or birches on every advisory visit to heather courses. If all members did the same, the next generation would not face our problem of clearing choked, competing saplings and thorn, smothering itself and producing tiger country, slowing up play and losing balls. How much better to thin out and leave a few grouped standards and, incidentally, how much better for birds and wild flowers. It was the Continued on page 14...
TOP TURF CARE PRODUCTS

SELECTIVE WEEDKILLER
For control of a wide range of broad leaved weeds in turf.

SHOWERPROOF SELECTIVE WEEDKILLER
Emulsifiable concentrate for control of broad leaved weeds in turf.

CLOVER KILLER
Selective weedkiller for clover and broad leaved weeds in turf.

MOSS KILLER (liquid and granular)
Economical, easy to use, for complete moss control.

MARKETED IN THE U.K. BY RIGBY TAYLOR LTD.

TURF FUNGICIDE
For effective control of fungus disease (including Fusarium)

SIMAZINE 2% GRANULAR
Control of annual weeds in shrubbery, rose gardens, etc.

ATRAZINE 4% GRANULAR
Non-selective weed control on paths, driveways, etc.

TOTAL WEEDKILLER
Removes all weeds and leaves roads clear.

WORM KILLER (liquid and granular)
For control of earthworms in turf.

DURAMARK
Non-toxic opaque white line marking compound.

MARKETED IN THE U.K. BY RIGBY TAYLOR LTD.

“FENDRESS”

High Quality Golf Green Top Dressing (FENDRESS) available in bulk loads of 15—18—20 tonnes, delivered anywhere U.K. mainland.

A specifically designed mix of Fenland Peat/Soils and Lime free sand carefully blended, shredded and sieved. Ready for immediate application to golf/bowling greens.

Save purchasing expensive equipment which stands idle for much of the year, also high labour costs, and problems of finding suitable ingredients of constant quality.

Pre-packed supplies now available.
Special mixes also prepared.
Also sedge peat “FINPEAT” in bulk.
Please telephone for quotations.

FEN TURF DRESSINGS LTD.,
36, HIGH STREET,
MARKET HARBOROUGH,
LEICS. LE16 7NL
TEL: MARKET HARBOROUGH 64346 OR LEICS. 551282 (Radio Phone).
AFTER being in the same business for over a century, Lloyds of Letchworth, Herts, has become synonymous with high-quality mowers for the professional user. Discerning greenkeepers and groundsman have come to regard the specially designed range as a cut above average.

The history of Lloyds is interesting for, at one time, the company imported mowers from the USA. Most were sidewayl machines, but the range included the Pennsylvania Roller Mower, which was specially designed for putting and bowling greens and was equipped with a heavy cast iron rear roller. It was believed then that the combined effect of mowing and rolling was beneficial for turf, but this was debunked by turf experts in the 1920s. With shrewd foresight of the needs of the market, Lloyds introduced a lightweight mower for fine turf, the New Era, which was specially designed with various components made of aluminium alloy. This was an immediate success and finally led to lightweight designs for other makes.

One of the imported machines in the 1920s was a mower with a cutting width of 25 inches called the Pennsylvania Man and Boy or Pony Mower, which was designed to be pushed by a man while another pulled, or fitted with a seat and a pair of shafts for use with a pony. To eliminate hoofmarks on the turf, Lloyds offered special leather boots for the pony. It was Lloyds that joined up three Pony Mowers using a wooden towing frame to make what we now know as a triple gang mower. This was at first horse-drawn, but later the frame was strengthened for use with tractors.

As time went on, the demand for...
wider and stronger gang mower units grew and Lloyds designed and introduced these in 1928. This basic design was so successful that they remained in production until some years after the Second World War. Some of these mowers are still in use and the oldest, according to the records, was supplied in 1931. At one time, many greenkeepers believed that a mower with an engine should not be used on putting and bowling greens as they were convinced that the extra weight would eventually cause damage to the turf. But Lloyds decided in the face of this opposition, to introduce the Pegasus mower, which incorporated a lightweight 75cc four-stroke engine to drive the cylinder blades. Many of the older generation of greenkeepers will remember this machine, which became very popular and did much to dispel the prejudice against motorised fine turf mowers.

During this period, Lloyds commenced manufacturing a big, rugged side-wheel mower to deal with rough grass and the side-wheels were driven by separate clutches operated by twist grips. This allowed the mower to be steered and controlled with ease and this machine—the Pennsylvania Side-Wheel Motor Mower—proved so popular that it has remained in production ever since, but with many improvements over the years.

After the end of the last war, the company developed a very light side-wheel mower, the Ariel, with a full differential drive that was capable of cutting long grass on awkward banks and slopes and this model still remains in production, as does the Paladin, which was developed a few years later. The Paladin followed in the wake of the Pegasus, but its driving power was extended to self-propulsion by incorporating a clutch mechanism, which takes up the drive slowly and completely eliminates rear-roller spin on damp turf.

With the rapid increase in facilities for sport and recreation in the 1950s, the limitations of the Pennsylvania gang mower became apparent and it was back to the drawing-board to design the kind of machine that was capable of performing at very much higher mowing speeds. This was quite an achievement in technical terms, but all the obstacles were overcome and the final result was the Leda range of gang mowers, which have remained in production—again, with many improvements over the years, mostly in the form of better materials with higher impact resistance and much lower wear rates. It is the claim of Lloyds that its Leda gangs are the fastest, resulting in considerable labour-saving economy.

Lloyds Paladin range of mowers was designed and built on the principle that they should be robust and reliable and suitable for climatic conditions in Britain and Europe, where it is often necessary to cut damp or long grass. A feature of the Paladin is an eight-bladed cylinder that attains 126 cuts per yard. This figure is determined by the number of blades in the cutting cylinder and the speed at which they rotate, in relation to the forward speed of the mower. Every good greenkeeper knows that the fewer the blades, the faster they must rotate to produce a satisfactory number of cuts per yard.

The advantage claimed in not having too many blades is that longer grass can be cut and the mower can deal with wet conditions better. The fewer the blades on the cutting cylinder, the faster it must rotate to obtain enough cuts per yard, which has the added advantage of throwing wet grass or mud from the blades into the grass box instead of sticking and building up. The increase in speed placed greater stress and wear on the bearings of the cutting cylinder, but Lloyds compensated for this by fitting big, adjustable, taper roller bearings instead of the usual ball bearings. These taper roller bearings not only cope with the extra cylinder speed, they last.

Lloyds has never had any problems selling its products. They are kept at full capacity trying to meet demand and never advertise—there is little need with constant repeat orders plus those from recommendation. Lloyds is very conscious of the importance of a totally reliable after-sales and spare-parts service, which is provided direct to customers.

To commemorate The Queen’s Silver Jubilee, Lloyds built a special 21 inch Paladin mower, which was presented to Her Majesty. This unique mower would be the pride and joy of any greenkeeper; all aluminium...
NEW: accurate, even spraying - as you walk.

Walkover, the greatest step forward since sliced grass. Now even weeding and feeding can be enjoyable. Fast and economical too.

No more pegs, strings, watering cans, knapsacks or sacks of solid fertilizer. And no motor to go wrong!

Because at the very heart of new, unique Walkover is a small, reliable pump 'powered' directly by the front wheels. Walk forward and it controls an even, accurate spray of liquid weed and feed. It's as simple as that.

No more patches of untreated turf or waste of liquid - Walkover's rear wheels leave a temporary impression to line-up to and ensure even coverage. And for good measure one tankful of spray treatment (20 litres of diluted concentrate) will Walkover 500 sq. yds. in about 10 minutes.

Take the first step now. Simply return the coupon for full colour leaflet and order form.

To: Walkover Ltd., 21 London Road, Great Shelford, Cambridge CB2 5DF. Tel: (0223) 842726

Price: £89.50 + VAT

Please send me complete details of NEW WALKOVER plus order form.

NAME

ADDRESS

POSTCODE
Irrigation at Grass Roots level!

Most irrigation systems throw water around in impressive arcs or circles but how many do so to a controlled, uniform pattern? Getting the right quantities of water to turf root level at the right time is the secret of good irrigation and that's a secret shared by Toro . . .

Specify Toro replacements or Toro for that new turf system and you'll automatically get the full benefits of Toro's secrets into the bargain! Yes, sprinklers are important but equally so, the valves, controllers and pipework must be balanced to ensure maximum efficiency in all its aspects. Toro specified equipment and accessories do just that!

For the full story, phone or write Toro today . . .

TORO IRRIGATION LIMITED, UNIT 7, MILLSTREAM TRADING ESTATE RINGWOOD, HANTS. BH24 3SD. TEL. 04254-6261

CAMERON MAKES A WORLD OF DIFFERENCE!

Good courses mean good golf. This is why over 200 U.K. courses have invested in an RIS Cameron pop-up sprinkler system.

RIS Cameron will also update existing systems. Write or ring for details of our install-it-yourself plan.

WELL UNDER PAR FOR THE COURSE

Britain's Best Turf

Supplied in square yard rolls all year round from nurseries throughout the country. Varieties available for all purposes - details from:

Rolawn

Rolawn Ltd, Dept. GK, Elvington, York YO4 5AR
Telephone (0904) 85661

Rolawn Ltd, Dept. GK, Elvington, York YO4 5AR
Telephone (0904) 85661

10 GREENKEEPER JUNE 1983
IT is now more than 20 years since automatic irrigation systems were introduced to this country from the US and the number of golf courses with these installations has steadily increased. Most irrigation companies offer an annual servicing contract, through which they visit the course and make a complete inspection of the system, carry out any necessary repairs and generally ensure that all the equipment is in satisfactory condition before the start of each season.

Preventative maintenance is most important for a sophisticated watering system. Pipe maintenance is a rather simple procedure, where exposed areas above ground should be checked for leaks and cleaned and painted if needed. Underground pipes can have one item of maintenance performed and that is to increase the pressure 20-50 psi on the system for a short time. Any weak areas that could break during a crisis period might be found and repaired during a quiet spell.

Electric wires should be maintained by inspecting all connections to make sure they have not started to corrode or loosen. After winter construction jobs or drainage work, it is essential to ensure that cables have not been accidentally severed by digging operations. Other electrical circuits need periodic inspections. About once a year an electrician should check all major connections, pump starters, loading of the motors, etc, in the pumphouse.

Pumps need constant attention to keep them in good running order. It is easy to turn on an automatic controller, watch the pressure gauge needle surge a little and then conclude that everything is in working order or the pumps wouldn't have started. It could be that the oil reservoir has leaked empty or the packing is loose and leaks water faster than the sump pump can pump and the water is just about to get into the motor.

To prevent this occurring, a regular daily, or at least semi-weekly, inspection should be made. Start the pumps, listen to their sound, feel their vibration, check the pressure and correct immediately anything that is unusual. Sprinklers require only minimum preventative maintenance, as long as the sprinkler is turning at the proper speed, the water stream is normal and it raises and lowers correctly. If any of these do not function properly, immediate attention should be given to correct the malfunction.

Most types of sprinklers have some thrust washer or sleeve. If this item is abused and worn out, then the odds are that some more expensive part is being destroyed at an excessive rate. If the sprinkler cannot perform properly, the controllers, pipes and pumps are of little value.

Some ways to cut down on maintenance are:
1. Set the sprinkler as high as possible to keep out dirt and grit.
2. Set the sprinkler low enough, so that it will not be damaged by mowers.
3. Repair immediately any malfunction.
4. Never force a sprinkler open or closed at any time.
5. Never operate at excessive pressure.
6. Operate the sprinklers no more than necessary. A regular schedule should be established for the operation of each sprinkler not only to ensure it works properly, but so

**Set the sprinkler low enough to prevent damage by mowers as part of preventative maintenance.**

**Watermation**

WATERMATION is the leading British Company in this specialized field of golf course irrigation. We have designed and installed automatic systems for more than 200 courses, at home and abroad, including the top championship courses. We can offer you the most advanced equipment, plus years of experience and what is more, the determination to see your job done well.

Sole distributor for Weathermatic, turf sprinkler equipment
Breakthrough in fairy ring control.

Now there is a complete cure for fairy rings. One dose of Ringmaster can remove all signs of the fungus and leave the turf well on the way to recovery. Ringmaster is a liquid that is easy to use from the unique easy-measure-dispenser pack.

Results have shown that one dose of Ringmaster, coupled with improved general turf care, can prevent the problem recurring. Ringmaster is a major advance in turf care.

Complete moss control.

Healthy turf is moss-free turf. Super Mosstox is the easy-to-use liquid for the economical control of moss with excellent turf safety.

Super Mosstox works at any time of year wherever moss is a problem, including all hard surfaces. With Super Mosstox you can remove all sources of infestation.

Rovral, Supertox, Ringmaster and Mosstox are trade marks of May & Baker Ltd., Dagenham, Essex, RM10 7XS.
HEAD GREENKEEPERS - PLEASE HELP US TO HELP YOU!

GREENKEEPER NATIONAL SURVEY

The following survey is designed to give statistical information that will benefit all our industry - you, the Greenkeeper - the Companies that supply you - and GREENKEEPER the magazine that is published for you.

Please do NOT put your name on this form. Please tick the boxes where appropriate.

In which county/country is your course? .................................................................

Type: Municipal [ ] Private [ ]

Number of holes: 9 [ ] 18 [ ] 27 [ ] 36 [ ] more [ ]

How many staff do you have? .................................................................

Salary range for a basic 40 hour week.

£3,000 - 4,000 [ ] £4,000 - 5,000 [ ] £5,000 [ ] £5,000 - 6,000 [ ]

£6,000 - 7,000 [ ] £7,000 - 8,000 [ ] £8,000 [ ] £8,000 - 9,000 [ ]

£9,000 - 10,000 [ ] Over £10,000 [ ]

Do you receive any other benefits? .................................................................

Free accommodation [ ] Free heat, light etc. [ ] Working Clothes [ ]

Non-contributory pension scheme [ ] Travelling expenses [ ]

Association subs paid [ ] Time off for golf [ ]

Other benefits please state: .................................................................

Holiday entitlement p.a. (excluding public holidays)

15 days [ ] 16 - 20 days [ ] 21 - 25 days [ ] more [ ]

Are you a member of a greenkeepers Association or Institute? If yes, please state which .................................................................

How long have you been a greenkeeper? ................................................................. years

What are your qualifications? .................................................................

Are you responsible for producing a budget? YES/NO

If "Yes", what was your total budget for last year? .................................................................

What was the amount for wages? materials? maintenance? new machinery? .................................................................

THANK YOU FOR YOUR HELP - PLEASE RETURN THIS FORM TO GREENKEEPER AT THE ABOVE ADDRESS.
The immediate answer to turf disease.

Rovral Turf is the immediate answer to six important diseases of turf including Fusarium, Dollar Spot and Red Thread.
Rovral Turf works by a unique contact action which means that it goes on working throughout the winter and during summer drought. Your turf will be noticeably greener with Rovral Turf.

Easily number one for weed control.

Treatment with Supertox 30 is particularly economical because you can choose the dose rate to exactly match your need, from clean-up jobs to really difficult problems.
The broad-spectrum of Supertox 30 covers such problem weeds as chickweed, yarrow, pearlwort, creeping buttercup, daisy, dandelion and clovers.
Whatever the dose needed, you can rely on the turf safety of Supertox 30.
Jim Arthur
Continued...

Continued...

cyclic coppicing every ten to fifteen years of hazel and sweet chestnuts with oak standards that produced our treasured primrose and bluebell woods. The loss of the former, especially, is much more due to the stopping of coppicing because it was uneconomic than to over-picking.

Bracken must be controlled and can be easily with Asulox. Huge areas sprayed with Asulox in the early stages of construction at Woburn years ago have stayed clear. Luckily, when dealing with manic conservationists, who are often urban exports to the countryside, spraying bracken is easy, because there is little visible effect from a June spraying until the next year, when it does not shoot!

Similarly, we must manage heather. Heather will not tolerate three things (four if you include heather beetle, which is not a serious pest in Britain). These are traffic, alkaline materials and grass. To survive, (even if growth is encouraged by regular topping in early March, giving the maximum time for seed-setting) heather must regenerate and seedlings can grow only in bare soil. Therefore, when fine grasses encroach, the heathers die out and another invasive cycle begins. By all means rope off vulnerable areas to stop a ramification of walks across it, but spray heather in February with Dalapon—a grass-killer, which at that time of the year will not harm heather. The bleached grass may be unattractive for a short period, but it will save the heather.

We must realise that while golf started on natural golfing country, the 'management' was often left to grazing animals (including rabbits), which is intolerable today. We must replace this control, otherwise our open heathland courses will degenerate into woodland. I even hear, with total incredulity, proposals to plant trees on links courses and my only consolation is that what the golfers and the weather do not get, the gang mowers will sort out. Manic planting by amateur 'phantom planters' is going to leave insoluble or costly problems for future generations and will destroy parkland courses where the whole character derives from majestic individual mature specimens acting as hazards.

Golf is a game of open spaces not some indecent exercise to be screened from public gaze. Look at pictures of our famous courses—from one end of the country to the other—and mourn the change to thorn scrub, or solid, lifeless birch plantations. Work out the cost of restoration, already started on many courses but, at present, only nibbling at the problem, and then go out and pull out a score of seedling trees.

Lloyds of Letchworth
Continued...

Lloyds of Letchworth
Continued...

components highly polished, and other parts heavily plated and polished except the cylinder blades, which are painted red. Even the fibreglass grassbox was impregnated with silver powder to complete the silvery look. This Paladin was delivered to Balmoral, where it is reported to be performing useful service on the Royal golf course and much in demand.

Lloyds has never been bothered by industrial disputes and most shareholders work for the company. Since the 1930s, repairs have been undertaken at the factory. Thousands of machines have been overhauled annually, which has enabled the design staff to assess wear rates, resistance to accidental damage, the relative merits of different materials, etc. This information is indispensable when it comes to making new models and improving existing ones.

* DROUGHT * COMPACTION * THATCH * DRY SPOTS * PUDDLES *...
Mr Supaturf has the answer to your problems.

AQUA-GRO

the professional water management treatment from Supaturf

For advice contact Mr. Supaturf at:

**Peterborough**
Tel: 0733-68384

**Birmingham**
Tel: 021-465-9617

**Manchester**
Tel: 061-320-6320

**Worthing**
Tel: 0903-67515

GREENKEEPER JUNE 1983
PLAY THE GAME WITH MAXWELL HART

Pick any Maxwell Hart product or service and you’re bound to select a winner. Unrivalled value and quality is the name of our game whatever sport you play. Our range is hard to beat, too.

Grass seed – the perfect blend for the job in hand. Bowling greens, golf greens, football pitches, hockey pitches, cricket squares, tennis courts – whatever you want to sow and grow.

Fertiliser – make sure what goes down comes up strong and healthy with Maxwell Hart first-quality fertilisers. Straights, and in specially prepared compound form.

Chemicals – as the country’s leading distributor for May & Baker, Ciba Geigy and Synchemicals, we’re bound to have the formula you’re after.

Ground Maintenance – everything you need from rollers and rakes to sprinklers and sprayers. Use the equipment the professionals use.

Hockey Pitches – natural turf or Poligras, our outstanding synthetic surface. Goals and nets, permanent and portable.

Sports Equipment – a complete range. All sorts for all sports.

Athletics – from the hurdles you run over to the surface you run on, such as Maxiplay and Maxisport ranges.

Football – we’re top of the league for all you need. Posts, Poligras synthetic pitches. A real first division selection.

Cricket Wickets – no need to be stumped for a choice of supplier. We provide all you need, from practice bays and sight screens to Jubilee Poligras and Escocrickey.

Tennis and Multi-sport areas – perfect natural or synthetic surfaces to bring out the best in your game whatever it may be.

If you’d like to know more about the Maxwell Hart range, the ball’s in your court. Just write or phone and we’ll send you details by return.

FOR DETAILS OF THE MAXWELL HART SUPER SUMMER PROMOTION SEE YOUR LOCAL REP. OR TELEPHONE 0734 785655

MAXWELL HART
TRANSPORTABILITY: Easily and quickly towed from one area to another by any vehicle. High clearance to mount curbs and other obstacles. Also available with Hydraulic Lift which can be adapted to any tractor equipped with external hydraulics.

DIRECT DRIVE: Reduces weight and provides variable reel speeds ensuring the best possible finish in fine 1⁄4in cuts or rough grass up to 10in long. The mower can also be driven by any PTO vehicle such as a Land Rover or small tractor.

LIGHT WEIGHT, RUGGED CONSTRUCTION plus Flotation Tyres reduce compaction and turf damage leaving no wheel tracks.

GREAT COMBINATION: Positive Direct Drive plus Light Weight Design provides efficient operation in a great variety of wet and dry conditions surpassing any other mower.

FLEXIBLE SYSTEM: Available in 3, 5, 7 gangs and 4, 5, 6 bladed reels for a variety of grass conditions. Can also be fitted with front rollers.

ECONOMICAL: Requires only 24-30hp Tractors reducing fuel and operating costs. Simple mechanical design using easily available standard parts greatly reduces down time and repair costs.

NEW: Nylon brushes to remove wheel tracks in long grass. Brouwer Reel-Sharp, the only gel-based reel lapping compound.

Brouwer

Red House Farm, Preston Brook, Warrington, Cheshire
Telephone Aston (Runcorn) (STD Code 09286) 261
Roffeys And Huxleys Share Show

Nearly 200 delegates, representing golf courses, local authorities, government departments and sportsgrounds, were at Meon Valley Golf and Country Club, near Southampton, recently for an exhibition in modern turf management organised by Roffey Brothers of Bournemouth and Huxleys of Alresford.

The all-day programme featured a comprehensive indoor display by leading suppliers of chemicals, fertilisers, composts and turf maintenance machinery.

This was followed by an outdoor demonstration, a film on modern turf care and an illustrated talk by Dr Peter Hayes.

Roffey Brothers showed its Stockwell brand of horticultural and sports turf composts. These are mixed to individual specifications and include bedding and container composts for parks departments, fine loam cricket wicket dressings, sports turf composts and peat-based dressings. Additives, such as Alginure or fertiliser, can be included at the time of mixing.

Roffeys also showed the new enzyme soil conditioner Soilife.

During the outdoor demonstration, Huxleys showed its new hydraulically driven Reelmowers fitted to both the Cushman Front Line and Cushman Turf Trucksters. The new Four-Wheel Cushman Truckster has full road lighting kit. Huxleys’ new aerator for the Cushman has variable depth settings from 3in to 9½in and can also be used as a light roller.

For The Record

Regular readers of Greenkeeper will, no doubt, have read with interest comment that has appeared following the introduction of Rigby Taylor’s new Mascot range of fungicides and weed, moss and worm killers for the amenity and turf care markets.

Reports have also appeared in other magazines covering the response to the Mascot range by competitors. Some of these have attempted to cast doubts on the professionalism and integrity of Rigby Taylor and imply that Mascot chemicals are, in some way, sub-standard.

Founded in 1919, Rigby Taylor is a member of the British Agrochemical Supply Industry Scheme (BASIS). As with the company’s other products, the Mascot range has gained full approval from the government’s Pesticide Safety Precaution Scheme (PSPS). It is manufactured to Rigby Taylor’s formulations—although, in common with most competitors, the company doesn’t produce the chemicals on site.

Additionally, since Rigby Taylor is wholly British-owned, rather than a subsidiary of a larger company based overseas, it obtains chemicals from British manufacturers. In fact, the majority of the company’s products are made in the UK, where all items in the Mascot range are bought.

With depots in the north and south of England, which are supported by teams of sales and service personnel, Rigby Taylor offers a rapid, efficient and friendly back-up on all its products.

The Mascot range comprises selective weedkillers—both showerproof and regular—plus liquid and granular worm killers; moss and clover killers; Atrazine (4% granular) for non-selective weed control on paths and driveways; Simazine residual weedkiller—also available as 2% granular for use dry on shrubberies and rose gardens—and Duramark white line turf marking paint.

Full details can be obtained from Rigby Taylor reps, the company’s Bolton, Lancashire headquarters or Rigby Taylor (South), Peasmarsh, Guildford.
Jeff Smith has been made general manager—construction and plant hire division of Maxwell M. Hart (London). He will be responsible for the management and development of this growing division, which specialises in the construction of sports and amenity installations.

David Rogers has been appointed area rep for the south west and western sales region. He will be responsible for the sales and general management of a product range covering all aspects of sports and amenity products and supplies from grass seed and fertiliser to synthetic grass football pitches.

Nickerson Turfmaster has appointed Hugh Page (Sussex) of Station Road, Heathfield, Sussex (tel: Heathfield 2235), to look after its sales interests in East Sussex.

Charterhouse Turf Machinery is now offering three new machines specifically for the user of professional turf machinery.

The first is the golf greens Verti Drain, which is a specially adapted version of the sportsground model launched last year. The new greens machine is designed to relieve compaction down to a depth of 12in. The tines can have diameters of ½in or ¾in and are at 2in centres.

The width of the machine is 1.5 metres. The tines enter the ground to their full depth and then lift the soil in the same way as a fork, which is driven into the surface and then has pressure applied to the handle.

In doing this, any pan compaction is broken, allowing water to drain away and air, compost or fertiliser to get down to the roots of the grass.

The Chariot Sprayer is designed to be towed by any greens triple. The sprayer can apply herbicides, fungicides or liquid fertiliser. Its tank holds 200 litres of spray and the machine has sprung-loaded booms that cover the swathe six metres wide. Each side boom can be controlled separately and there is an adaptor for plugging in a hand lance.

Also in this range are two Knapsack Sprayers, a three metre wide hand propelled machine ideal for sportsgrounds, called the Wheely, and two tractor mounted machines.

The Sewol Viking is a 21in rotary mower. The deck is fabricated steel with steel wheels mounted on roller bearings. The one-piece solid cutter bar is powered by a 5hp Honda engine or the 5hp Briggs and Stratton. A two-stroke option is also available with the JLO RM 170 engine. This machine is ideal for cleaning up behind bigger machines or mowing medium sized areas.

Marketed and supplied by Charterhouse Turf Machinery, The Old Mill, Mill Lane, Godalming, Surrey GU7 1E7, managing director David Jenkins and sales manager Philip Threadgold can supply full details.
corrosion will not stick or bind parts together.

Valves are generally inaccessible, but an attempt should be made at least once per season to open and close any manual adjustments and to check leakage or excessive corrosion. Electrical connections should also be inspected. Many systems are installed with concrete or steel boxes around the valves and these boxes have a tendency to settle over a period of time.

Trenches are a good example of preventative maintenance. If they are dug too deeply and filled with loose soil under the pipe and if the pipe is not bedded with good material, or if the backfill is not compacted over the pipe, settling will occur, breaking the pipe and leaving a depression on the surface. The depression must be filled to keep the surface level.

Watermation has introduced a new development in irrigation control systems. A new digital controller has been designed to replace the somewhat complex satellite systems for large irrigation systems.

The single controller, which can be located centrally, has built into it four separate zones that can each operate simultaneously with 99 stations in each zone. It could, therefore, be likened to four individual controllers, each with 99 stations, but all built into one box with one set of controls.

The operation of the timing sequences is all solid state and the digital operation is by push buttons with one inch high characters.

The difference between this controller and others is that it has been designed to overcome the problem of individual control wires to individual valves, which is costly, difficult to repair and inflexible.

In place of the multi-cable system, each zone is just equipped with two heavy-duty wires common to all the valves on that zone. In order to facilitate separate control of each valve on an independent basis, at each valve connection there is a special small decoder. When it receives its own signal, it will initiate the functioning of the valve.

If such a system is installed initially for watering only 18 greens, then the watering system can be extended to handle tees, approaches and fairway areas without laying any further cables. All that is necessary is to tap into the pair of wires adjacent to the position, fit the appropriate decoder and the automatic function is then available.

From Toro, the 650 Series gear-driven pop-up.

The controller will give watering times from one to 99 minutes in one minute settings up to four starts per day, has a day omit facility, manual, semi-automatic or automatic operation and a built-in test cycling function, which will automatically indicate the number of any faulty solenoids on the golf course.

These new controllers have already received extensive field testing equivalent to five years service.

Toro Irrigation has recently introduced the Toro TAC System, designed for updating the 600/620 systems to 650 heads (note: fully adjustable part circle), without the necessity to repipe, repump or recable. The system is based on a low-cost, solid state relay system, which allows each green to be split into two stations, reducing the pumping requirements at each station.

Another new system is the Toro Three-Wire Control System, designed for new installations or systems where tee or approach watering needs to be ‘added on’. The scheme requires only three wires to run the whole watering programme instead of the maze of wires used on older installations. Not only does this reduce the cost of the installation, but it also makes servicing and cable repairs far simpler.

---

UquM Organic Fertiliser

If you want an inexpensive natural fertiliser that will:

* Encourage a deep hard-wearing turf
* Help the growth of fine grasses
* Assist deep root development
* Maintain the natural greens and colours of the turf
* Mix with weedkillers for ‘Feed and weed’ and
* Will not scorch
* Is safe and non-toxic
* Does not produce a flush of growth (and so cuts mowing costs)
* Is low cost
* As used by many courses including championship

For information, literature and supplies contact your local merchant or Farmura Ltd, Stone Hill, Egerton, Ashford, Kent, Tel: Egerton (023376) 241
Ten Year's On, SGI's Still 'Popping Up The Market...'

Sports Ground Irrigation was started in 1973, specifically to carry out the installation of automatic irrigation systems on golf courses.

Initially, subcontracting for a major firm gave a working view of irrigation systems and this, coupled with many years of laying water supplies and drainage systems for farmers, led to the company taking on the distributorship for the UK of Buckner irrigation equipment.

Since then, it has added Rain Bird equipment, giving clients the choice of two leading names in impact-drive, pop-up sprinklers.

Along with the main business of installing systems, the company carries out some 150 maintenance contracts, offering a fast service anywhere in the country.

Sports Ground Irrigation's service staff have a comprehensive knowledge of all types of system, from gear to cam to impact drive heads, and by using the latest British Telecom equipment they can rapidly trace and repair the greenkeeper's nightmare—a cable break.

While many greenkeepers can repair a burst, the control and on-course cable side of systems normally requires expert attention and this is where the right equipment is absolutely vital.

In an industry where the work is necessarily seasonal—due not only to the climate, but also the volume of play these days—the emphasis is on installations on new courses in the summer, switching to existing courses during the winter months when play is less.

Each time an existing course installs a sprinkler system, there is one less course for the industry to do and with the recession the amount of new starts has been low. This, in turn, means that competition is fiercer and, as a result, prices are lower and profit margins eroded.

On new course work, the paradox is that the industry takes on work at lower margins to keep staff employed. In reality, an installation on a new course, with all the earth movement and other contractor's equipment, should be priced much higher.

Some time ago, SGI priced a full 18 hole irrigation system costing in the region of £12,000 to £13,000 in 1974. Taking account of inflation and wage increases, a similar system today should cost in the region of £35,000 to £40,000. Instead, it costs between £20,000 and £25,000. In many cases, less!

This means that, in real terms, there is less reinvestment in the industry for new technology and new machinery and the overall result of this situation is that eventually the service to the client suffers, as insufficient margins can be built-in for guarantee and repair work.

Nevertheless, Sports Ground Irrigation looks forward to the new season with confidence. Recent new contracts include the Belmont Golf Club (pictured on this month's front cover), the new Hinckley Golf Club in Leicestershire and the Calderfields Golf Club in the West Midlands. In addition, the new nine holes at Hagley Golf and Country Club will shortly be irrigated along with the first nine holes.

Also, many older systems are now being updated from gear-driven to impact-driven sprinkler heads.

Sports Ground Irrigation was one of the founder members of the British Turf Irrigation Association and a director of the company is on the main committee of this organisation.

The aims of the BTIA are to carry out work to a minimum standard and to promote the association generally.

Overall, Sports Ground Irrigation is well-placed to promote both itself and the industry and the company looks forward to maintaining a significant part of the market in turf irrigation.

On a final note, the agency for Perrot agricultural irrigation equipment was added to SGI's range of suppliers and a separate farming division formed to promote this allied field of operation.

Full details from Sports Ground Irrigation Co, Hereward Lodge, Paget Road, Lubenham, Market Harborough, Leicestershire. Tel: Market Harborough 63153.
EIGGA’s Seaside Success

At the close of the first EIGGA Educational Conference and AGM, held at the Brighton Polytechnic recently, one distinguished speaker summed up the general feeling. “Most of the papers were exceedingly good, but in particular it was the questions from the younger greenkeepers that were most thought provoking,” he said.

The poly proved the ideal venue and the weekend attracted nearly 100 delegates. It is likely that those who attended will help spread the word and ensure that the second conference, to be held at the same time next year (and probably at a central location), will be even more successful.

After lunch on the Friday, Michael Coffey welcomed everyone on behalf of Greenkeeper and EIGGA. The first speaker was Geoffrey Athill, who revealed details of the six unit correspondence course now available to head greenkeepers and first assistant greenkeepers for the EIGGA Diploma In Management. Those interested can contact Mr Athill at The Bournemouth and Poole Management Centre, 1 Lowther Gardens, Bournemouth, Dorset BH8 8NF. The course costs £80 (inc VAT).

The second speaker on Friday was Nick Rigden, head of horticulture at Plumpton College, who outlined details of a stage-three course for greenkeepers, running from September at Plumpton on a day-release basis and for which he hopes shortly to have recognition from the City & Guilds.

It was generally felt that such a course would be more attractive on a block-release basis, but Mr Rigden explained that, in this first year, it was not possible to do this without financial guarantees. All agreed that this was a significant step in the right direction and, once established, should be expanded for the benefit of greenkeepers all over the country.

The Saturday sessions, chaired by David Jones, were kicked off by Wing Commander Bill McCrea, secretary of Walton Heath, who gave a detailed talk on what he expected from a head greenkeeper.

Next came Bob Surridge of insurance brokers J.D. Ward, who explained the cover EIGGA members already enjoy under their subscription and other benefits and opportunities available, including a private medical care scheme open to all members of the association at a 20 per cent discount.

In the afternoon, Jim Arthur took to the stage and, as he has done so often, held his audience with a compelling paper on the greenkeeper and the agronomist working together as a team. This talk, liberally spiced with anecdotes, brought a large number of questions and comments from the floor. In particular, Martyn Jones had different opinions and enjoyed the opportunity to explain his views.

After dinner, Dr Peter Hayes, director of the STRI, gave a talk illustrated with an interesting collection of slides on the work of the STRI, dealing in some depth with the results of surveys the institute has carried out on drainage, pH values and grass types, as well as disease in turf.

Dr Hayes came under close questioning about the institute’s advice and confirmed that, on some matters, there had been certain changes of policy at the institute since his appointment.

Sunday, chaired by Kevin Munt, opened with Howard Swan, founder of the British Association of Golf Course Constructors, giving an illustrated talk on green and tee construction. This covered some of the history of course building, as well as the variety of new methods available for green construction.

Due to the absence of Jim Prusa, the remaining session on Sunday morning was taken up with a brains trust. The panel consisted of Jack McMillan, course manager at Sunningdale, Hugh MacGillivray, course manager at Worthing and Bert Watson, head greenkeeper at Tyrrells Wood. Although this session only lasted an hour, it could have gone on for three, such was the high level of discussion.
IS YOUR COURSE UP TO SCRATCH?

AN EXPERIENCED ADVISORY SERVICE IS OFFERED IN ALL ASPECTS OF COURSE MANAGEMENT.

INSPECTION VISITS, FOLLOWED BY COMPREHENSIVE REPORT FOR COURSE IMPROVEMENTS. ADVICE ON COURSE ALTERATIONS AND REMODELLING OF GREENS, TEES AND BUNKERS.

All enquiries to:

John Campbell, c/o Greenkeeper, 121/123 High Street, Dovercourt, Harwich, Essex.
HEAD GREENKEEPER
required by
KILLARNEY GOLF and FISHING CLUB
(Two 18-hole championship courses)

Applications are invited for the above post from persons of proven ability and experience in golf course maintenance. Salary negotiable.

---

Apply in writing, stating age and experience, to:
The Secretary/Manager,
Killarney Golf and Fishing Club,
Mahony's Point.
Killarney, Co. Kerry, Eire.

---

LONDON BOROUGH OF EALING
PARKS AND AMENITIES

HEAD GREENKEEPER

Brent Valley Golf Course

Average weekly wage for a 39-hour 5-day week including bonus and in charge rate varies between £109-£112. Enhanced rate for weekend working.

A high standard of work required to maintain an 18-hole golf course. Applicants must be experienced in all aspects of course maintenance and knowledge of modern machinery essential. Would be required to work at weekends.

Accommodation available.

Please quote reference: M 783 P.
Closing date: 24.6.83.

Out of hours service on 01-840 1995.

---

CROWBOROUGH BEACON
GOLF CLUB

require a

HEAD GREENKEEPER

Applicants must have a sound knowledge of all aspects of greenkeeping and experience in modern golf course management techniques.

A practical working knowledge of the use and maintenance of modern greenkeeping machinery, with the ability to motivate and lead staff.

The salary is negotiable. There may be accommodation available.

Please apply in writing, giving age, qualifications and full career experience, to:
The Secretary,
Crowborough Beacon Golf Club,
Beacon Road,
Crowborough, East Sussex.

---

SWINDON
An equal opportunities employer
Grass cutting used to be the one job nobody expected a Cushman to do.

After all, when you’re already using your Turf Truckster every day of the year to spike, aerate, transport, topdress, vertirake, or spray, you can’t expect it to do everything. But that’s just what Cushman Users seem to do!

The all-hydraulic Huxley Reelmower is the very latest in our range of British made turf care implements, specially developed at the request of Greenkeepers and Groundsmen to make the Cushman Turf Truckster even more versatile and productive.

The Reelmower gives an exceptional finish on golf course aprons and large tees, as well as on semi-rough or fairway areas — even in wet conditions when other equipment cannot be used.

You can cut up to 6 acres per hour, with easy operation of all controls from the driver’s seat, and the cutting units follow undulating ground contours.

Ask to see how your course can benefit from Cutting the Cushman Way, and how, with a full range of quick-fitting accessories, the Cushman Turf Care System will carry out almost any specialist job you have to tackle.

HUXLEYS GRASS MACHINERY, 22/26 CHURCH ST., STAINES, MIDDLESEX. TW18 4ER. Tel: 0784 51123