

Above: Showaddywaddy gain a new recruit in the shape of BIGGA's very own, Sarah Sowerby

Right: The Banquet sponsors, Stylo Matchmaker line up for a photo call



the great social event of the year are complete, the BTME banquet. The sense of anticipation has been growing throughout the day. This year is a rock 'n' roll theme and the setting looks good with pictures of James Dean, Elvis Presley, Marilyn Monroe et al adorning the walls. The jukebox is keeping the workers happy as they set up for the evening ahead while in reception guests will be welcomed by the front and back ends of a Chevrolet and 1950's traffic lights. It is surely going to be a fun night! 6.30pm and a brief visit to the Chairman's pre-banquet reception for VIP guests. Then a final check on banquet arrangements. At 8pm it is underway and just before 10pm I introduce the Chairman to say a few words having for my part already declined to undertake a repeat performance of the ding-a-ling song!

ding-a-ling song!

On time at 10pm Showaddywaddy duly appear with a full blast of the dam busters march as they tune their instruments. They haven't found the secret of eternal youth since their heyday in the 70s but their professionalism abounds in a great performance. Within minutes the dance floor is engulfed and yours truly does not sit down again until the performance ends. I note the number of ladies dancing the night away and reflect on the ever-increasing female presence at the BTME - a most welcome development and a far cry from the early days when they could be counted on one hand. The exhibitionists (if you see what I mean!) are in full flow and I fear for the safety of one or two of my staff! Welcomed back for an encore, the final number is Mony Mony and lo and behold my PA, Sarah, is up there with them strum-

ming a guitar and joining in the vocals. Truly a night to remember and thanks to Stylo and particularly Managing Director Trevor Walker for their much appreciated sponsorship of the banquet. Not a night for going to bed either unless you are staff on duty next morning. I give in at 2am.

Friday January 22

The pace is slower particularly among those who have been there since Sunday. Friday morning I always find quite enjoyable. Less traffic in the halls, a sense of "end of term" and more time to talk informally with visitors. I always think that those attending on the Friday get to see who they want a little quicker and probably succeed in getting done the business they set out to do. It is winding down at 1pm and goodbyes are said for another year. It has been a great start to 1999 and already there is much talk of BTME 2000. At 2.30pm I meet with staff for a quick debrief. Exhaustion has set in and I think most will sleep for the weekend. Thanks to everyone who supported BTME this year and particularly to our exhibitors.

And finally...

It's the Monday after and we are already thinking about BTME 2000. With an expanded exhibition and our educational theme of 'Greenkeeping Past, Present and Future' it is going to be a very special event. Come for the week, 17 to 21 January. I look forward to seeing you there. By the way, any ideas for our banquet entertainment next time around...?

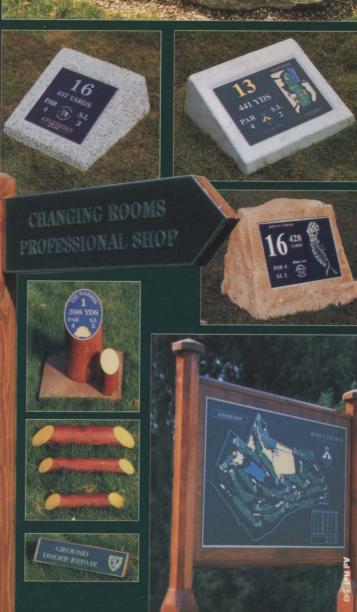
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Top: Groovin' greenkeepers!

Above: Rebecca, Christine and Sami got into the swing of things

Left: Under the Moon of Love with Showaddywaddy

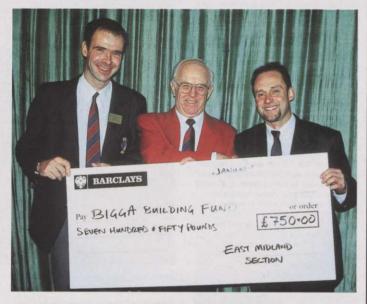
Below: The latest Master Greenkeepers receive their awards from Gordon Child. From left, David Hannon, David Duke, Sid Arrowsmith and John Quinn

Below right: BIGGA's new Guardian Mark Dobell of the R&A











Above top: Jim Fry receives his Honorary Membership certificate from Gordon Child

Above middle: The Building Fund was boosted by this sizeable cheque from the East Midlands Section. Richard Barker and the Section Chairman, David Leatherland made the presentation

Above (directly): Andy Campbell, of Carden Park, receives his £600 cheque as winner of the Membership introduction competition



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M,O,C, München-Freimann John Deere's new Turf General 2030 utility vehicle can be used as a general materials transporter or with specialist turf maintenance equipment for a wide range of applications in the golf & turf and commercial groundscare markets. It was previewed at BTME99, before being officially launched in the UK and Ireland in the autumn.

The standard tipping cargo box has a capacity of 876kg, and towing capacity at the rear hitch is 680kg. Overall capacity with driver, passenger and loaded attach-ment is 1203kg, while unladen weight is 841kg.

In addition to the cargo box, it can be fit-ted with a range of different attachments utilising the vehicle's hydraulic services and mechanical pto. These include sprayers, spreaders, top dressers, materials collection systems and adapter kits for other turf maintenance equipment.

The new 180A walk-behind greens mower made its first ever appearance in Europe at the show. This is an 18in version of the

established 22in 220A model. It has been introduced to the John Deere range as a result of customer feedback, and provides an alternative choice for greenkeepers working on undulating greens, where the narrower configuration provides better contour following and

reduces the risk of scalping.
The 180A mower incorporates an 11blade, 46cm reel, delivering a high quality cut at up to 3.4mph, with adjustable cut-

ting height.

Dual aluminium traction rollers are fitted, covering the entire length of the bedknife. An external differential drive splits power to both the rollers, allowing straight tracking and easy turning.

Toro launched a new subsurface injector at BTME99 is designed to save green-keepers' time and money in controlling soil-borne pests and diseases, as well as being safer and more environmentally friendly.

The unit employs a sprayer with a 160gallon tank hooked up to a coulter blade system, and is towed behind a tractor. There are 16 blades and spraying is carried out at low pressure up to 200psi to a depth of up to one inch.

This also can mean savings on chemicals through reduced application rates and frequency of treatments - while putting chemicals directly into the ground eliminates drift and run-off.

Toro Commercial Products' UK distributor, Lely, expects a lot of initial interest from greenkeepers as the product has some unique features

The new Toro Reelmaster 5400-D four-wheel-drive fairway mower introduced at BTME is designed to offer a more powerful alternative to the company's Reelmaster 5200-D launched last summer. Both machines are Toro's response to customer calls for a competitively-price and more-simply-engineered fairway mower

with a lower specification and less-sophisticated features.

But whereas the 25hp 5200-D is designed particularly for links and heathland courses where grass growth rates are lower, the new 5400-D is fitted with a Kubota turbo-charged 32hp engine for customers who want extra horsepower for moresevere cutting conditions

The Reelmaster 5400-D 4WD costs £29,155 ex VAT.

UK greenkeepers were the first to get a look at Toro's new generation triple mower the Reelmaster 3100-D Sidewinder - when a prototype of the revolutionary machine made its world debut at BTME98. Now the final production version was on show at BTME99 and the first models of this unique mower will appear on the golf

course this season. What makes the Sidewinder an industry first is that its three cutting units can b

moved left or right . Toro is also offering the Reelmaster 3100-D without Sidewinder and this machine shares the same high power-to-weight ratio and unrivalled traction for hillside

excellent tolerance to close mowing. Bar Fairway is a new addition to the Bar range, containing some outstanding cultivars. Offering the best resistance to disease and withstanding drought well, Bar Fairway gives a fine, quality sward. There are also two new hard fescue cultivars to look out for, which are ideal in low maintenance areas, particularly in dry or infertile conditions. Barreppo has fine, mid green leaves and develops into good dense turf which resists red thread and tolerates frequent mowing. Bardur has dark green leaves, which are even more resistant to red thread. High shoot density makes it an interesting component of fine turf mixtures and it can tolerate mowing down to 7mm. Like Barreppo, it has good tolerance to drought and low fertility conditions.

Companion is the unique microbial turf inoculate, new from Amenity
Technology. It contains the active ingredient Bacillus subtilis GB03 and other

beneficial microbes that backed up with over three decades of research. Bacillus subtilis GB03 is a beneficial microorganism that quickly colonises in the soil, crowding out invading pathogen and producing a natural antibiotic as it grows. Companion has been shown to dramatically reduce the occurrence of a large number of diseases including Fusarium Patch and Anthracnos Unlike most other microbial inoculates Essential is a 100% natural organic soil conditioner and rooting biostimulant. As part of the holistic approach to plant care, It feeds soil microorganisms, improves the soil structure and supplies nutrients not available in N-P-K fertilisers. Essential's rich carbon based solution decomposes in the soil, acting as a food source for beneficial microorganisms. Active humic acid reduces compaction, while improving the

cation exchange capacity.

Amenity Technology also launched the new Bayco European range of Golf Course Accessories. The range features six and eight feet flag pins complete with UK ferules, UK hole cups and tie on flags.

Hydraulic frame for the 'H' models has been simplified and now runs on four small low ground pressure transport wheels reducing ground compaction and the price.

The central quick adjustment lever for ease of adjustment of the tine angle has already proven itself with the 7212 and 7316 models. Now this special feature has been built into these bigger machines. Maintenance free self lubricated sealed bearings on all pivot points. This innovation saves the operator many hours greasing. Only the crank shaft and rollers retain their grease nipples.
All models are supplied with a standard

rear roller. These not only provide the customer with an extra facility but also acts as a storage stand too. Both front and rear rollers have integral scraper

A standard tool box is integrated in the Verti-Drains, containing the manuals and a combi-tool.

Turf Fingers are optional. These can be used when working with weak turf and helps to keep the turf in position while verti-draining.





Barenbrug UK's new amenity grass seed catalogue features a number of recommended mixtures and varieties made them worth extra investigation at this year' BTME

Bar Extreme has an improved formula for 1999, combining heavy-duty perennial rye-grass with remarkable fine turf characteristics. It is perfect for golf tees and fairways; wherever extreme wear tolerance must be balanced with a fine appearance.

The new, very fine leafed perennial rye grass Bareine gives this mixture its good looks. Extensive trials have shown its

Nearly two years after the introduction of the new smaller Verti-Drain Models 7212 and 7316, Redexim Charterhouse has introduced of the new generation bigger models of Verti-Drains. The machines were in fact ready for launch last autumn but Redexim, the Dutch Company who supplies the Verti-Drain, wanted them tested in extremely tough conditions throughout the autumn and prior to their debut at the BTME.

The machines have a rounder more appealing appearance but the real differences are technical and are summarised in the following points:

Textron Turf Care and Specialty Products launched new products under the Jacobsen, Ransomes and Izeki names. Jacobsen has added two all-new lightweight fairway mowers to its range of high performance turf-care machinery. Labelled the LF 3400/LF-3800, the five unit mowers combine durability and pro-ductivity whilst retaining low ground

Available with two- or four-wheel hydro-static drive, the new LF models are powered by 34hp (LF-3400) and 36 hp (LF-3800) water cooled diesel engines, producing a maximum working speed of 7.5 mph (12 km/hr). Power steering, tiltable steering column and an hydraulic oil monitor with horn alarm, all are stan-

The five cutting units span 8ft 4in and use Jacobsen's well-proven FlashAttach reelmount system for fast, easy maintenance, adjustment and changeover to verti-cut reels, available as an option. The reel diameters are 7-blade 5inch for the LF-3400 and 11 blade 7 inch for the LF-3800.

The operator's platform offers clear, uncluttered access from either side and the controls are ergonomically placed to one side of the driver. All regular service points are easily accessible. Both models are supplied with an integral roll-bar. Price of the LF-3400 begins at £25,640.00 + VAT (4-wheel drive £29,215.00 + VAT), and the LF-3800 at £33,150.00 + VAT. The Ransomes G-Plex 11 supersedes the acclaimed Greensplex 160. Containing a host of features designed to enhance performance, productivity and ease of servicing, the G-Plex 11 is avail-able with a choice of high-efficiency 18hp







petrol or 18.8hp diesel engines. Tandem hydrostatic transmission and reel pumps are direct driven by the engine, elimInating the need for belts and pulleys, reducing sound levels, vibration and maintenance.

A notable feature of the G-Plex 11 is its patented centre reel which pivots sideways clear of the mower for convenient adjustment and servicing. In work, an automatic time delay lowers and raises the centre reel after the front two units to maintain an in-line finish at the perimeter of the green.

It also has a number of design points which help enhance mowlng performance and ease of use. These Include a patented stabiliser linkage which levels the cutting units parallel to the ground during lifting and lowering, ensuring an even, level cut on undulating terrain and eliminating unit bounce in transport.

Two new ride-on rotary mowers were introduced by Iseki for the 1999 grass-cutting season.

Known as the SF200 and SF230, the new mowers are powered by 20hp and 22.5hp water-cooled diesel engines respectively. Both have two pedal hydrostatic transmission offering infinitely variable forward and reverse travel up to a maximum speed of 8.4 mph.

Maximum cutting performance is assured by rugged, shaft-driven Iseki mower decks available in 48in and 54in working widths. An hydraulic weight transfer system between the deck and power unit maintains maximum traction at the driving wheels while helping minimise grass dam-

age. The Iseki SF200 and SF230 ride-on front mowers are proved from £7325.00 + VAT (SF 200) & £8890.00 + VAT (SF 230).

Scotts UK Professional launched an exciting new product at BTME which can halve the amount of time grounds and greenkeeping staff need to spend mowing grass freeing up valuable man hours for deployment on more meaningful tasks. The product is Scotts Shortcut, a grass growth control agent which, unique among currently available growth regulators, reduces grass growth without sacrificing sward vigour and appearance.

Shortcut contains the new active ingredient trinexapac-ethyl, and has been the subject of an exhaustive series of UK trials over more than three years. The development work on Shortcut has involved research work at Scotts Levington Research Station as well as "in use" trials at a number of prestigious venues around the UK, including Wentworth and Loch Lomond Golf Courses

Consistently, Shortcut has successfully reduced mowing requirements by 50% on fairways and tees, freeing up labour at times of peak demand for mowing and other cultural activity. Crucially, turf responds positively to treatment with Shortcut, with trial sites also reporting enhanced colour, thickening of the sward and improved root development following application.

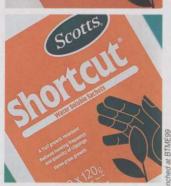
It works by restricting the lengthening of leaves and internodes over a period of four to six weeks. Because of this mode of action, Shortcut is able to reduce mowing requirements by 50% without sacrificing sward vigour and wear resistance. Scotts UK Professional launched a new, improved turf wetting agent at the BTME exhibition this month.

Aquanova replaces the old Levington Aquamaster and offers greenkeepers and groundsmen a better performance in use and improved value for money. Aquanova is designed to improve water penetration in turf areas, reducing surface water, encouraging deeper rooting and combating dry patch.

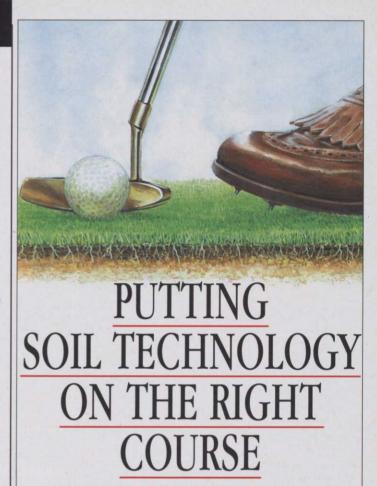
ing dry patch. Importantly in this market, given recent publicity, Scotts Aquanova does not contain environmental oestrogens. Aquanova is available through the Scotts

Aquanova is available through the Scott Master Distributor network in 10 litre, packs, two to an outer.









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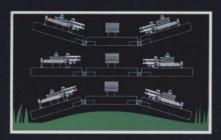


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Guardian of the Dictionary, Roland Taylor, reveals the definitions behind some of the words and phrases which surround modern day grass cutting machinery.

Cutting remarks

Golf Course Equipment has changed considerably over the last two decades and with this has come new names for components or features. These can sometimes be confusing and leave one wondering what are the benefits. Understanding the role they play and how they work not only adds to knowledge, it often can help to ensure they are used to their full potential and maintained correctly.

One of the biggest changes in grass cutting machinery has been the introduction of hydraulic powered (fluid power) drive systems.

Hydraulic Power

This is a controlled circulation system of a pressurised liquid (in this case oil) to a motor which coverts it to a mechanical output that will work under load.

Hydraulics is the science of fluids in motion and has been harnessed by man for centuries, but it was not until 1650 that French scientist, Pascal, and Swiss physicist Bernoluli, formulated the laws on which today's hydraulic-power is based.

During the next 200 years it was only possible to use the velocities and pressures produced by nature. With the advent of the pump in the 19th century this all changed and in 1882 the City of London had a hydraulic system that delivered pressurised water through the street mains for driving machinery in factories and lifting bridges and hoists.

The next milestone occurred in 1906 when an oil hydraulic system was installed in "USS Virginia" for controlling and raising the guns.

During the 1920's, a self-contained hydraulic unit appeared on the market and opened the way for a host of applications. The rest is history.

The major benefits of hydraulic power is its flexibility and the fact that it produces more output than mechanical and electrical units of an equivalent size. It also responds rapidly and accurately to controls.

Two types of motor are used - linear and rotational.

The linear unit consists of a piston within a cylinder. The energy from the oil is transferred via a piston rod to a mechanical operation such as lifting or lowering. As well as being used on mowers and turf machinery, these hydraulic rams are found extensively in agriculture, aviation and automobiles.

In the case of rotational motors, the pressurised fluid, which is supplied by a hydraulic pump, acts on vanes, gears or pistons within the motor to create a force that produces torque (rotation) to an

output shaft.

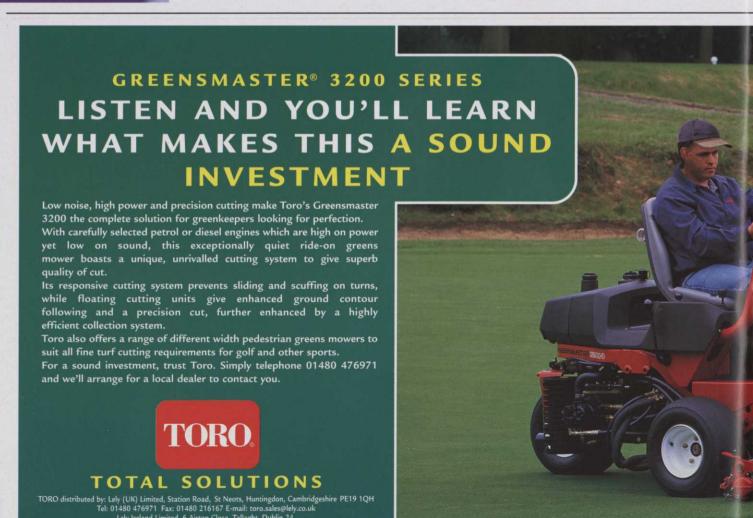
From this it can be seen that a modern ride-on fairway mower has linear motors to lift or lower cutting units and to provide power steering. The reels and transmission are driven using rotary motors.

There are a number of important factors relating to the care of a hydraulic drive system if it is to work satisfactorily.

The oil flows under considerable pressure, so a lot of heat is generated which needs to be dissipated. A cooling unit is part of the system and this only operates effectively if cold air gets through to it. If the ducting or fins become blocked by dried grass or dust then the oil will overheat and major problems can

The tank has a reservoir to ensure that the correct volume of oil is maintained throughout the system. This level needs to be checked periodically to ensure there is ample oil available.

Bearing in mind that the machin-



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ery is often used in a hostile environment, cleanliness is vital to a hydraulic system. Contamination of the oil by water or dirt will have disastrous results with the likelihood of hefty bills.

Other areas to watch are the hoses and especially their couplings. Check to ensure these are secure. It is not much fun being drenched in hot hydraulic fluid, so also make sure that hoses are not chafing against the frame. At any sign of a leakage or damage, replace with new components - the greens are not going to respond very well to a dose of oil, even if it is biodegradable.

Ergonomic design

Another phrase that has appeared in leaflets over the last few years, is 'ergonomic design' - sounds impressive, but exactly what does it mean?

One dictionary describes it as human engineering. In other words the operator's well-being is considered as an integral part of the overall design of a piece of equipment. All the aspects relating to the role he will play are taken into consideration. This is an area that is increasingly important, especially as turfcare machinery becomes more sophisticated and higher productivity is expected.

Ergonomics covers practicalities, efficiency and safety through the careful selection of displays, control layouts, work environment and operator comfort.

The type of features that show a company is using ergonomics as parts of their design are:

Fully adjustable suspension seats
Controls within easy reach
Adjustable steering column
Weather protection
Safety features over and above
the minimum requirement
Accessibility for making adjustments or general maintenance
Driving position with all-round
visibility
Low vibration and noise

In a nutshell what ergonomic design really means is that the operator will feel comfortable using the equipment and fatigue will be reduced to a minimum; as a result, the machine's optimum performance will be achieved.

Ergonomics are now very much a part of modern design, not just a fancy phrase in promotional literature. When it comes to buying equipment, find out exactly the benefits that are on offer under this heading.

Power-to-weight ratio

This is a phrase that is often found in literature on hand-held equipment such as brushcutters and chainsaws. It is the amount of power an engine produces in relation to how heavy it is.

To reduce weight and increase engine output without sacrificing quality is not easy, but with modern materials and changes in design an engine that is lightweight with plenty of power is achievable. Where hand-held equipment is going to being used for long periods at a time power-to-weight together with exhaust emissions, vibration and noise levels need to be taken into account.

Over the last two decades lots of beneficial changes have taken place to improve golf course machinery and the greenkeeper has had to adapt to using a new breed of equipment and become accustomed to the appropriate jargon. Technology is moving fast - already computers are becoming part of a greenkeeper's equipment, especially in the field of irrigation. Diagnostic modules are appearing on machines and engine management systems will soon be the norm. There are probably a host of new introductions about to appear in the next millennium.

The learning curve could be enormous, so it is up to each and every one of us to seek out any information that keeps us abreast of developments and the modern language that is likely to go with it.



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