of the modern day greenkeeper? Discuss...

We marvel, and rightly so, at the adaptability of modern greenkeepers and their ability to keep on top of the developments which have moved the amenity industry well and truly into the high tech age. But what about the companies which have had to meet the increasingly sophisicated demands of but what about the companies where have have the the the heatingly sophisicated demands of people who are striving to produce better and better playing conditions for golfers? We gave several of the biggest machinery manufacturers a platform to discuss how they have gone about meeting the demands of the modern day greenkeeper as we approach the 21st century.

INTO THE





Hayter

It is December 31st, 1999. The dying embers of the 20th century are smouldering in the grate and the midwife is about to deliver the new year. A new millennium is about to be born.

Actually, it's not. Mathematically, the third millennium does not start until 2000 years have elapsed and therefore we are all a year too early. And that presupposes that old Gregor, when he was devising the calen-dar we use today, managed to account accurately for the years after Christ's birth. There are some considerable doubts about this so maybe we are all worrying unnecessarily.

Maybe the year 2000 computer problems are all just an industry scare tactic. Maybe we have already passed the year 2000 with-out a problem. The trouble is, the computers still think we are where we think we are today. Confusing, isn't it ? Anyway, what are we doing to adapt to the needs of today and what are we doing to address modern greenkeeping needs? Today's greenkeeper is a very different ani-mal to that portrayed by many of the "old brigade" of golf club members.

He or she is better trained and more professional than many of their forebears and their contribution to maintaining playing surfaces subjected to ever-increasing usage, is seldom fully appreciated. Similarly, the machinery at their disposal has adapted to these changing demands. The true surfaces wanted by members and professional golfers alike require precision machines capable of maintaining accuracy in almost all conditions.

The development of power-driven cylinders was a major contributor to grass cutting in all conditions but the introduction of computer controlled equipment to make

machine components, has transformed the accuracy of machinery design and repeatability of spare parts.

This has helped ensure that modern equip-ment used on golf courses gives longevity as well as consistent accuracy over its lifetime.

Computers now control the design, manufacture and finishing of modern machinery. From solid modelling and three dimensional computer aided design, through computer aided material turning, stamping, cutting, bending, joining, moulding etc. to computer controlled high class finishing, modern

machinery helps produce the quality of equipment needed. And all that at a cost that, in real terms, is stunningly competitive with days of old.

Manufacturing investment has been massive. The investment in logistical support has been equally impressive encompassing satellite ordering for next day delivery of spare parts; electronic cataloguing for the easy and accurate identification of the required parts; internet updating of relevent health and safety considerations; training CD's; operational instructions etc, etc. These are some of the benefits that have been passed on to the user. It follows therefore that, as the reliance on the computer becomes all pervasive, we must ensure we have contributed adequately to Y2K compliance. Even if the date is wrong, the computer

could still bring all the greenkeepers hard work to a standstill and render useless all the gains that have been made. Failing that, how many greenkeepers can still use a scythe ?

Kim Macfie. Sales and Marketing Director of Hayter

Charterhouse: Greenkeeping 2010...

INTO THE

When we look to the future we often find our thinking is restrained by the past which prevents us from imagining the outrageous or the totally radical. Let me give you an examp It was only 20 years ago that we used to struggle to find a tele-phone box which hadn't been vandalised. At the time it would have been impossible to imagine that almost everyone, including teenagers at school, would be carrying their own satellite linked mobile telephones. Manufacturers have the problem of thinking the unthinkable to

ensure that they do not miss future developments which could radically affect their industry. We all know about demographic changes which are already taking place. These include earlier retirement coupled with longer life expectancy and more affluence in retirement.

These changes are fast becoming matched with a 'healthy living syndrome' and if this movement continues, golf could become much a part of the health care industry as the sporting one. Pork pies in the clubhouse being replaced by fruit and nut bars but on the course, environmental issues coming to the fore.

We have already seen the movement getting underway with bat-tery driven mowers. As the battery industry becomes more proficient we could end up with all implements being electrically powered, including tractors. Failing this, the movement to clean er engines (avoiding pollution) and probably using GLP as the power source could well become the norm.

In today's media we find enormous controversy raging around GM food but perhaps some of our problems with turf culture

could be solved by GM turf seed. What would the properties of the seed be?

Hard wearingLess cutting required

- More tolerant of lower cutting heights
 Moss and disease resistance
- Better root formation

If this were possible what cultivation techniques would be required? Fewer sprayers, better aeration and cultivation tech-niques to ensure an all year round playing surface. In farming, modern satellite technology has given rise to GPS

land mapping. The system identifies exactly whereabouts you are and what crop techniques are required to within a few yards in order to produce the maximum crop potential.

Could the system in 10 years time identify to within 200mm areas which require moss treatment or specifically control the irrigation to only wet areas needing the extra moisture or even to tell the Head Greenkeeper which morning to mow the greens and which to avoid. Many of these concepts feel uncomfortable but the industry will

need to break free of its present paradime in order to react to the vast changes that could happen! These will also include new buying patterns and use of the Internet at some stage with respect to equipment purchase and where to obtain the best service. Only time will tell in all these facets of the industry. Dialogue and creativity among the market place is an absolute must, starting now!

David Jenkins, Charterhouse







John Deere

Last year, by industry accounts, John Deere captured over 20% of the worldwide golf course maintenance market. Over the same period Deere & Company invested more than a million dollars a day in research and development, with a significant proportion

day in research and development, with a significant proportion going towards golf & turf equipment design. The golf & turf business has been the fastest growing part of the company's commercial & consumer equipment division through-out the 1990s. Up to 30 % of John Deere's golf & turf sales are delivered outside North America, the majority in Western Europe. For each of the last seven years Deere & Company has been get-ting the views of thousands of greenkeepers through its annual Feedback programme, which has now been held in the USA, Europe and Australia. A wide range of new and prototype machines are scrutinised, driven and commented on by the peo-ple whose opinions matter most to John Deere - the customers. ple whose opinions matter most to John Deere - the customers. "Feedback is the company's annual reality check," says John Deere Limited Managing Director Alec McKee. "We depend on these meetings, on pre-production demonstrations and on thou-sands of test hours on golf courses around the world to frame our product development and improvement programmes.

"We ask greenkeepers to be open, honest, and blunt - and they are. Greenkeepers are impressed not only because we are asking them for opinions, but because they can see that their suggestions are taken seriously.

"We've learned a lot from each Feedback we've held, and we still have a lot to learn. We want to be considered as business partners with our customers, and that means we look to

enkeepers for ideas and information.

greenkeepers for ideas and information. "We had more prototype machines in the field last year than at any time since we entered this market more than 10 years ago. Many of the modifications and refinements on several new mod-try in the last ware of two are the direct result of what els in the last year or two are the direct result of what eenkeepers have asked us for.

"The basic design of any machine works worldwide, and green-keepers' concerns are similar - they want performance, reliability, quality of cut, serviceability. The Feedback meetings help us to fine tune the equipment so each machine does the right job for each individual customer.

"The main difference between the European and American markets, for example, is in the number of people employed on the golf course. European greenkeepers tend to spend more time on their machines, as they are fewer in number compared to the USA, so they demand higher specification seats. Low noise levels

USA, so they demand higher specification seats. Low holes levels are also driven by European requirements. "Deere & Company is genuinely committed to British and European greenkeepers. The worldwide Golf & Turf Division Business Manager, Ken Edwards, has regularly attended BTME and SALTEX, and he and his factory colleagues have visited many UK and Irish golf courses to learn more about European condi-tions and environment. The semana also employ a Superson tions and requirements. The company also employs a European golf & turf specialist, Howard Storey, who is based here in the UK, at Langar.

"Regular staff and dealer training courses, and investment in new products and manufacturing systems, ensure that the company will continue to provide the most advanced and reliable machines possible for the professional greenkeeper

Kubota

Kubota is recognised principally by Course Managers and greenkeepers for producing reliable, user-friendly compact tractors and ride-on front rotary mowers. However, lift the bonnet of many other makes and types of golf course machinery and there is a strong chance that you will find a Kubota engine providing the power.

Long established as the world's number one producer of small water-cooled diesel engines, Kubota power units are the first choice of 80 other machinery manufacturers, many of them leaders in their field.

Recognising the long hours and varied workloads of greenkeepers, Kubota is constantly seeking to enhance the comfort and convenience of its compact tractors and ride-on mowers to reduce fatigue and improve operating efficiency. Kubota was one of the world's first manufacturers to introduce tilt steering columns and fully adjustable seats to suit different size drivers.

different size drivers. Most Kubota tractors and mowers now come with rubber-mounted flat deck floors

which combine low noise and minimal vibration with plenty of leg and foot room, providing easy access from either side of the machine.

If your Kubota tractor or mower is fitted with a cab, you can be certain that allround visibility, sound levels, ventilation and comfort are of the highest standards to promote smooth, efficient and safe greenkeeping operations from dawn till dusk.

Kubota appreciates also that first class service and parts support is a must for golf course maintenance machinery. To ensure that performance is maintained at peak levels, all of Kubota's operations are regulated by ISO 9002 - an international quality control accreditation under which systems and procedures are constantly checked and monitored to maintain a consistently high standard. The most recent evidence of Kubota's total commitment to its customers is a £300,000 upgrading of its Thame, Oxfordshire headquarters, with the emphasis on extending and enhancing the parts storage and distribution operation.

To complement these steps, Kubota UK technicians and the company's appointed dealer staff throughout the UK and Ireland receive regular training from factory personnel so they remain right up to date with the latest technologies and developments.

Feedback from end-users in the golf course industry has always been a top priority for Kubota. To this end, the recently launched Kubota Owner's Club is now providing a closer link with customers via the club's quarterly magazine and national and local events supported by Kubota. Membership is automatically given to all new Kubota owners. It is impossible to list all of Kubota's efforts and achievements aimed at meeting the needs of the modern greenkeeper. So here are just six to consider:

• The introduction of the first true four-

wheel drive compact tractor. • The introduction of the first four-wheel

drive front rotary mower. The introduction of hydrostatic transmis-

sion systems on compact tractors and diesel ride-on mowers.

 The introduction of power steering as standard on 19hp - 45hp tractors and rideon mowers.

The introduction of Bi-Speed Turn, a system which automatically speeds up the tractor's front wheels when the turning angle exceeds 35 degrees, resulting in faster, tighter turns with less scuffing.
The continuing introduction of approved matching implements to extend the yearound working range and versatility of Kubota compact tractors.





The traction, durability and comfort of Softspike's[®] revolutionary new Black Widow[™] cleat has established new performance standards for the industry. The Black Widow[™] is simply in a different league from anything else. Its cantilevered 'legs' flex as you walk to provide maximum traction, and gives the same protection against green damage as our popular XP design. The Black Widow's[™] innovative polyurethane material makes it easily the most durable plastic cleat available.



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A new concept in cleats: Bite.



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SISIS

SISIS has 13 salesmen and four demonstrators in daily contact with our customers, giving unrivalled opportunities to discuss problems, needs and current trends. This valuable information is reported back to Head Office at Macclesfield and used to formulate design and development policy for future projects.

SISIS believes in listening to the customer, then setting out to meet his or her requirements with well engineered, long lasting machinery.

Going back to the Company's foundation in the early 1930s, it was watching greenkeepers laboriously forking and hand raking their greens that led to the development of the first powered aerators and, later, scarifiers. In recent years fairway maintenance has become more important and here also SISIS had answers: the hydraulic Veemo to remove thatch quickly and efficiently; deep slitters and hollow corers for effective relief of compaction; the Quadraplay Fairway Groomer for fast, routine maintenance and improved presentation. SISIS also enlists the help of greenkeepers to test new machinery. This ensures that controls are conveniently placed, tines are easily fitted, machines are well balanced and easy to handle. Pre production prototypes are often to be found on the SISIS stand at BTME for the final seal of approval before production.

In recent years everyone has become more environmentally aware and good mechanical maintenance techniques can often mean a reduced need for chemicals. Nevertheless, when pesticides are essential, the SISIS Ecospray with fully shrouded spraying units, allows the responsible modern greenkeeper to apply them without risk to adjoining vegetation and water courses. The importance of the Ecospray's unique features was recognised with the award of Millennium Product status

Another growing trend seen as we approach the year 2000, is more concern over cost effectiveness. Thus multi-purpose machines grow in popularity, the Quadraplay one-pass groomer; Rotorakes with eight interchangeable reels for powered scarification, shallow spiking and brushing; powered aerators which will also operate brush, rake and spiker slitter. On smaller courses with limited budgets, deep aerators, hollow corers and top dressers only used once a year are hired. SISIS has risen to this challenge with SISIS Hire operating from three regional depots and now, with the acquisition of Huxley's Grass Machinery business, are able to offer an even larger range of equipment; including the Technicore vertical action corer; the Soil Reliever for really deep treatment; top dressers; seeders and just about anything else a greenkeeper could need. To sum up, SISIS policy is to offer the busy

modern greenkeeper his or her own local Area Representative to give advice and after-sales support, backed up by a truly excellent spares service and national network of service dealers. Above all SISIS acknowledges that today's

greenkeepers are to be listened to. And by listening SISIS will continue to offer a range of reliable, innovative, well designed machinery to enable modern turf professionals to give their golfers the very best surfaces on which to play, now and into the new Millennium.

Textron

What do military aircraft and mowers have in common ? Not much, you may think. But Textron Turf Care and Specialty Products are adopting practices used by the defence aerospace industry to help ensure ease of maintenance on their new turf care products.

Textron, whose products include Ransomes, Jacobsen, Cushman, Ryan, Iseki and E-Z-GO, found through a series of user focus groups that turf care machinery maintenance downtime was a severe cost penalty to its customers. "While we have always been aware that ease of maintenance was an important issue, we decided to introduce a Maintainability Assessment as part of the pre-production

testing," explained Director of Engineering, Steve Chicken. "The assessment placed a numeric value on the visibility, need for tools, safety, manual reach and grip, and prior actions required for each maintenance action. This measurement technique is not only used on new machines under development but we also use it on existing machines and competitors' machines. This helps us highlight good design features and also acts as a benchmark from which we improve new products," Steve added.

"As a result, our new municipal grass cutting machine, which is being launched later this year, has been designed with a 40% improvement in it's measured ease of maintenance, and we're sure that's a new feature which every customer will appreciate," he said. Other features are also being designed into new products to minimise the maintenance required. New machines being launched this year now have a 60% increase in hydraulic oil replacement life and in some the first five hour oil change has been eliminated completely. Textron have been working to introduce increased commonality of parts, such as filters and accessories such as cabs, and lighting kits. This not only improves stock holding for the greenkeeper, it

This hot only improves stock holding for the greenwepter, it also makes training easier. The Parts service has also come under the spotlight and this year Textron have launched Parts Xpress - an overnight parts delivery service which guarantees delivery of Textron genuine parts to the Textron dealer by 7 am the next day.

Marketing Director, Peter Bell, explained, "We realise that when our customers need parts they generally need them yesterday rather than the day after tomorrow. "The company has made a massive investment in a new computerised parts warehouse at lpswich which now allows us to offer a parts service which we believe is second to none." "As far as we're concerned it is all part of our philosophy of

"As far as we're concerned it is all part of our philosophy of understanding the needs of our customers. Of course they want reliable and effective machines which represent good value for money, but they also want to keep machinery maintenance downtime to an absolute minimum and we hope that by making our machines easier to maintain, backed up with a parts service which is quicker than ever, we can help them achieve that aim," added Peter.







Toro

It is perhaps fitting that, in the run-up to a new millennium, it's a Toro-maintained world-renowned golf venue that is hosting the final Open to be fought out in Britain at the turn of this century.

For the simple but significant fact that Carnoustie Golf Links has teamed up with Toro for The Open in 1999, epitomises the unrivalled position at the top of world golf course maintenance that has been attained by the American pacesetter.

The Toro Company, from Minneapolis, in Minnesota, sees itself today as a provider of 'total solutions for outdoor landscapes' - and looks on its customers as 'caretakers of the environment'.

And so it is when it comes to meeting the needs of the modern greenkeeper. Commercial Products is the division responsible for all Toro professional turf machinery; although a key part of its market-leader strategy is that Toro also has irrigation systems too. Indeed, it's the only provider of both. But on the machinery side, providing today's Course Managers and greenkeepers with the products and back-up support they need to meet the heavy demands placed on them, is a continuous process that begins with listening to their needs and experiences and ends by providing their staff with operator and service training. Along the way comes the development of innovative state-of-the-art products and the maintenance of a highly-professional national distribution and dealer network for complementary standards of sales and aftersales support.

The specifics of this scenario see The Toro Company itself, with its United Kingdom and Republic of Ireland distributors, Lely UK and Lely Ireland, hosting regular customer feed-back events at Toro facilities in the US. There are sessions on machinery products at Minneapolis headquarters with engineering manufacturing and product-testing, as well as visits to Toro's main Commercial Products' manufacturing facility in Tomah, Wisconsin, for discussion of product-related issues with senior production management. Toro European Sales Manager Bob Buckingham says: "Toro is committed to looking at customer needs on a worldwide basis, not just a US viewpoint. These occasions are for us to listen to what our UK customers have to say about the products and key turfcare issues that affect their daily work, so Toro can ensure it meets all their current and future needs. On the product front, Toro excels in providing innovative solutions. As the proven industry leader in producing the highest quality cut the company demands that every new product meets similar quality standards. Classic examples include the Recycler mowing deck and the HydroJect water-injection aerator. While the latest innovatory coup is Toro's remarkable Reelmaster 3100-D Sidewinder the first mower with cutting units that move sideways to increase their overhang, which is a boon for cutting around bunkers, aprons and obstacles.

As the national distributor, staff at Lely UK, in St Neots, undergo extensive training and service education classes specific to golf customers' own applications. In turn, Lely provides its national network of local dealers with parts and service training as well as operator training. This includes provision of a large demonstration fleet for customers to try out kit in their own conditions, as well as an efficient parts service.

New computer systems are embraced continually, such as the introduction later this season of the new Toro Recommended Parts Programme (TRPP). And of course Toro is at the root of one of the greenkeeping industry's greatest on-going challenges, that of raising standards and the professional status of the greenkeeper. This has come from its support for education and training via schemes with BIGGA and others such as The Toro Student Greenkeeper of the Year Award and the Toro Excellence in Greenkeeping Award.