



Computers will also be at the heart of sophisticated tracking systems that have the ability to track and display the location of all essentials on the course. For example: equipment, players, staff, tournament officials and TV cameras.

Systems already exist in the agricultural industry to track the progress of things like harvesting operations. Toro is among companies that are developing this technology, and is confident it will come about in greenkeeping in the not too distant future.

The system relies upon a remote or palm-held device rather like a PDA (personal data administrator), which is used to collect and plot data for storage and display on a computer. Tracking systems will have the ability to plot and display all areas and operations on the golf course. These include areas that have been cut or are uncut, where spraying has been carried out, what has been watered, and parts that are, say, under repair.

So simply by looking at a map on a computer screen greenkeepers will have a snapshot of pretty well everything they need to know about what's going on around the course.

Another innovation set to herald big advances in the future of turf management is the use of spectroscopy. This is officially described as the science concerned with the investigation and measurement of spectra produced when matter interacts with or emits electromagnetic radiation. Think of the spectrum of colours in a rainbow representing the different parts of light.

Spectroscopy in our case is about using this light source to produce data about elements out on the course that cannot be seen by the naked eye or known how else. For example plant tissue and soil conditions.

Toro and others are working on this and the technology could be no more than five years or more away. In practice, current thinking is that a light source device will be used to collect data and load it on a computer. This would be a portable instrument, but

developers are also looking at a much larger machine for 'real time' data gathering and volume analysis.





The data would be used to analyse plant tissue to show its composition, nutrient deficiencies, to custom-mix treatments, and, say, to establish the 'local needs' of an area of the course.

Information would be plotted on a computer for many purposes that would aid the greenkeeper. These start with, for example, for

storage and reference, and go on to help with development of treatment programmes and compiling records. For even greater detail, this method could be combined with data from infrared aerial photography.

The biggest driver for change here is the need to better conserve and manage water. The increasing cost of water and tightening restrictions on its availability will drive technological advances in all systems aimed at eliminating its wastage. Out of excessive watering come other associated problems such

as leaching of fertilisers and other chemicals used in turf treatments.

Spectroscopy technology will help here, too, as it will be used to target and control use of items such as fertilisers, herbicides and pesticides. Ultimately it will map your whole golf course.

The internet will completely change the way we communicate and run our businesses in a number of ways, including:

- Hand-held compact computers will give live access to libraries for reference information.
- video conference links will play a bigger part in training.
- all purchase orders will be placed via the internet.
- all manuals, videos, management programmes will be capable of being downloaded.
- archives/videos of case-studies, as well as presentations.

Among new methods that will evolve will be that future generations of greenkeepers will be totally computer literate and will demand the use of technology.

Work will no longer be just in 'daylight'. GPS systems will allow night mowing; repair work and maintenance will also be done at night.

Other new techniques, which combine many of the new technologies described here, will evolve. One example might be what is called Precision Turf Management. This is a combination of technologies using GIS (global information systems that map the Earth's layers, contours, features and soil types); GPS (global positioning system that accurately plots any location on the globe); sensors; and VRT (variable rate technology).

In broad terms Precision Turf Management is based upon two key principles, as follows:

- Soil conditions vary across large sections of land.
- If you can better manage the variability, then optimised economics and a cleaner environment will result.

Technologies are creating new opportunities to micro-manage inputs for production, as follows:

- Water, seed, nutrients, chemicals, soils.
- Manage smaller sections of land rather that average needs of a whole 'field'.

Information is the key. We would have access to much more data. The challenge would be creating 'information' from data.

Currently, greenkeepers essentially have only their eyes and experience to go on when it comes to turf management operations like, say, irrigation. Sprinklers are switched on and left to run for maybe a couple of hours – and that usually does the trick.

But with Precision Turf Management, where micro-management is being practiced, sensors under the turf hooked up to a computer would tell greenkeepers categorically whether the ground on any particular part of the course was wet, damp or dry and what watering if any was

needed. There would be no guesswork – and no wastage or unnecessary costs incurred.

The same devices as part of a micro-management system might also be used to measure sound, motion, heat, light and pressure. This would bring into play the management of other 'controllable' aspects of turf management such as compaction, mowing, pesticides, nutrients, hybrid grasses, thatching and fungicides.

Who knows how this may all evolve?

But we can be sure that technologies and systems such as those illustrated in this article will become widely used in our industry.

We shall still need people. The greenkeeper (you'll by now be glad to know) will not disappear. The function will however change from what we know it as today.

But while we speculate on 'what will be', manufacturers like us at Toro all still have to deal with real people and meet their needs for a product.

Barry Beckett is Senior Marketing Manager, International Division, for The Toro Company, based in Minneapolis, USA







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Heritage stops the spread of disease that exists prior to spraying.

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> *Turf roots absorb Heritage and move it tbrougbout the plant.*

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- Proven and unparalleled preventative and early curative action
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> Heritage moves into emerging leaves that were not present during the initial application.

JOHN DEERE Team Championship

BIGGA Chairman, Richard Barker reports on the Brokenhurst Manor's challenge for the John Deere World Team Championship in Arizona.



I am sure that you are well aware that Great Britain & Ireland were included in this year's John Deere World Team Championship for the first time. The World Team Championship are now in their 16th year and several teams from the USA and Canada, plus one each from Germany, Sweden and Australia have normally contested the finals before. However, this time Great Britain and Ireland were also included.

Well as for qualifying approximately 20 local qualifiers were held up and down the country hosted by John Deere dealers. Each of these winners then competed around the Brabazan Course at The Belfry just prior to the Ryder Cup knowing that a winning score would secure them a trip to Scottsdale, Arizona, and a place in the World Cup finals.

The format for the event was unique throughout as a John Deere Dealer made up a four man Texas Scramble with the professional playing his own ball. There were one or two other rules but that was the basic format and the best score of the two was to be recorded, so the scoring was always going to be low. A magnificent 17 under par (nett) was the winning score at The De Vere Belfry which was posted by Brokenhurst Manor Golf Club who then had three months in which to prepare themselves to meet the other finalists.

That time soon passed and on a cool November morning I met with the team comprising of Ed McCabe Course Manager; Bruce Parker, Professional; Paul Clifford Secretary/Manager; Charles Letchworth, now past Captain, and David Harrison, the John Deere representative from New Forest Farm Machinery, at Heathrow for the



eight hours journey to Chicago with a further two and a half hours across America to Phoenix.

Any fears of packing incorrect clothing were soon put to rest as the first sign we noticed read: "Welcome to the valley of sun" and upon leaving the terminal the heat just hit you.

So on to the hotel in Scottsdale and a good night's sleep before rising for the practice grounds. The tournament was played at Greyhawk, home to the 1997 Anderson Consulting Matchplay Championship. Over their two courses the Talon and Raptor. Practice was Thursday, Friday with the Championships held over the weekend.

On arrival at Greyhawk we were literally speechless – golf clubs were collected from the car, placed on one of the 160 buggies and taken to the 1st tee for the allotted tee time. The Clubhouse was magnificent as were the surrounding gardens. As for the golf course, well the only grassed areas were the playing areas, ie. tee's, fairways and greens and the rest was desert comprising of shrubs and mainly cacti, which you didn't want to get too close to! But the first real test came on the greens. They were fairly undulating and quite simply lighting fast and also true, the two practice rounds were most useful but we still struggled with speed.

So on to the tournament proper. With five shots to play with we - I say "we" as for the Championship I was a self appointed Brokenhurst Manor cheerleader - set off in a confident mood and scored 11 under on the first day. Not bad you may think but we were eight behind the first round leaders, Beacon Hall of Canada. But with spirits still high

1997 - 19

Reasons Including Course

hopes will help him fulli his empirion to become instant in terms. consellance and research, the pages to be a provide COD Call, from the within the terms will be help a fitting memory does 1983 and has already where it is the terms of the fit of the paint, of the part of the sellar of Higher National Diplome in Golf Course Management at the arthcash College He has werked at the Hartlendahile Golf Course Management at the arthcash College He has werked at the Hartlendahile Golf Course Management at the pointer of Deputy Course Manager.





we started the second day very well. After nine holes we were 7 under for the day but regrettably could not maintain the momentum. It was during this front nine flat that Brokenhurst dropped the only shot in the four rounds they had played from the qualifying to the final.

However we did finish on 10 under for the day and a second round total of 123 - (21 under par). With the worst score being a 130 we far from disgraced ourselves and finished about mid-table. But at the top of the leaderboard it was the Gallery Golf Course, from the USA, (55-56) and Beacon Hall, from Canada, (53-58) who tied on 111 - 33 under par.

Instead of the last 18 holes counting to decide a winner each team member had to play an 84 yard pitch from the 10th tee over the water to the 18th green with the two best shots counting (distances added).

So after an exciting finale it was the Gallery Golf Club, from Oak Harbour, Washington State, who lifted the 16th John Deere World Team Championship Trophy.

In all fairness, however, I believe everyone there was a winner it was a truly superb trip which was organised very professionally by John Deere. Thanks must go to all at John Deere for making us most welcome from start to finish. It was an experience that I won't forget in a hurry.

Thanks also go to Brokenhurst Manor who represented themselves and the Association so well, and to everyone else that supported the



tournament. Remember that John Deere paid £25 to our Association for each team entered. This amounted £9,300 and will be spent on the Education Programme at BTME later this month.

Hopefully John Deere will continue with this event so if you weren't successful this year try again next year. IT COULD BE YOU.



The Winning Team



The Key to Knowledge

BIGGA's Education and Training Manager, Ken Richardson, explains the background to the new BIGGA/Ransomes Jacobsen Scholarship Awards and highlights the lucky beneficiaries of the first trench.

Since its formation in 1987, BIGGA has always placed the Education and Training of its members as its highest priority. As the range of further and higher education courses has increased, many more greenkeepers have wanted to improve their knowledge and, therefore, their ability to produce the playing surfaces required in an increasingly competitive market. Higher education does not come cheap and most greenkeepers would struggle to find the fees demanded by colleges. BIGGA has, for several years, helped greenkeepers to pay for education and training through its Refund of Fees Scheme which is supported by its Education and Development Fund, which, in turn, is funded by contributions from its Golden and Silver Key Members. However, refunds from this scheme are limited to £250, far below the costs of most Higher Education courses. Now, thanks to generous support from Ransomes/Jacobsen, BIGGA is able to offer BIGGA/Ransomes Jacobsen Scholarship Awards to its members. Scholarships are awarded to BIGGA members who are on or about to start a course of Higher Education ie N/SVQ Level 4, Higher National Certificate, Higher National Diploma, First Degree and Masters Degree. The amount awarded depends on individual need but usually meets half the cost of the course.

"At Ransomes Jacobsen, we are committed to the future of our business and the industry as a whole. By

setting up this new scholarship scheme with BIGGA, we can help existing greenkeepers continue to learn, carry out research and obtain recognised qualifications," said Ransomes Jacobsen Managing Director, Steve Chicken.

"We are also hoping that by offering to assist with further education costs, we can attract more students into the business and in the long term, raise the profile of greenkeeping as an exciting and interesting career choice," he added.

The first scholarships, totalling over £8000 have been awarded but Ransomes/Jacobsen have provided further funding for 2003 and 2004. Application forms for Higher Education Scholarships are available from BIGGA HOUSE.

SCHOLARSHIP WINNERS

Name:

Position:

Golf Course:

Age:



Mark Zealander 25 Deputy Course Manager Botley Park H,G&CC

Course Undertaking: BSc Turfgrass Science and Technology, Cannington College

Reasons for taking course:

Mark is keen to study the science behind the industry and will build on the knowledge he developed while taking his National Diploma. He also hopes to use the qualification to assist other greenkeepers in their development and training and promoting the need for better education within the turf industry.



Barry Dore 26 Full time Student

Course undertaking: MSC in Sports Surface Technology, Cranfield University

Reasons for taking Course:

Barry has taken a year out of employment to undertake the course which he hopes will help him fulfil his ambition to become involved in turfgrass consultancy and research. He hopes to be a pioneer of future developments within the industry. He has been a BIGGA member since 1993 and has already achieved a National Certificate in Greenkeeping, at Elmwood College and a Higher National Diploma in Golf Course Management at Reaseheath College. He has worked at the Hertfordshire Golf Club where he reached the position of Deputy Course Manager.



Peter Jones 45 Consultant

Course Undertaking: MSC in Sports Surface Technology, Cranfield University

Reasons for taking Course: Peter has already passed the first year of the course and hopes to complete the degree by August. He feels that as his work primarily involves providing management support and training at all levels to greenkeepers across the country the knowledge he gains from the course is enabling him to pass on a greater amount of professional knowledge to other greenkeepers which, in turn helps them in their work. Peter has been a BIGGA member for almost 20 years and has lectured at many BIGGA seminars and workshops - including BTME - and supported over 30 NVQ modern apprentice candidates.



Allen Blizzard 27 Full time Student

Course undertaking: MSC in Sports Turf Technology, Cranfield University

Reasons for taking Course: Allen has always strived to take his career as far as possible and so far it has taken him to Los Angeles and Australia! He started work at The London Club and then was First Assistant at Royal Blackheath GC before taking part in the Ohio International Turgrass Program during which time he worked at the Los Angeles Country Club and Pinehurst. He also undertook some courses at Pennsylvania State University before travelling to Australia where he worked on a newly constructed Greg Norman course. He returned to the UK to extend his studying in the UK with a view to becoming a top Course Manager.



Name:

Position:

Golf Club:

Age:

Laurence McCrory 39 Assistant Greenkeeper Mentmore G&CC

Course undertaking: HNC Golf Course Management, Elmwood College

Reasons for taking Course: With seven years in greenkeeping behind him and having acquired the basic underpinning skills to be a competent greenkeeper Laurence now feels it time to take the next step in his own development to further and secure his future career. He believes that the HNC will ensure that his practical skills are backed up with sound technical knowledge which will ultimately enable him to be more professional.



Name: Age: Position: Golf Club: Peter Lacey 36 Head Greenkeeper Pennard GC

Course undertaking: HNC, Pencoed College

Name:

Position:

Name:

Position:

Golf Club:

Age:

Golf Club:

Age:

Reasons for taking Course: Peter feels that continual professional development is a must for all forward thinking turf professionals as the industry advances at such a pace. It is therefore essential to keep up with modern technology and to further one's knowledge on relevant matters, while not forgetting the proved and time tested traditional methods. The afternoon/evening course, asked for by Head Greenkeepers and provided by the college will enable Peter to continue his education while at the same time being on hand to provide the high standards expected by his golf club members.



Darryl Smethurst 34 Head Greenkeeper Saddleworth GC

Course undertaking: NVQ Level 4 Sports Turf (Fast Track), Reaseheath College

Reasons for taking Course: Throughout his career Darryl has understood the importance of further work related education and since moving to Saddleworth in 1990, he has been given the opportunity and encouragement to pursue this through college, BIGGA and other training providers. A D32 & D33 Assessor he is also able to provide support to other members of his staff at the beginning of their careers, while the NVQ Level 4 will allow him to advise others who may be considering taking that level.



Lee Bridge 31 Assistant Greenkeeper Seaford Head GC

Course undertaking: HNC Golf Course Management, Elmwood College

Reasons for undertaking course: Lee is a great believer that education should play a part in the life of every BIGGA member. He sees his course as an ideal stepping stone to a position as Head Greenkeeper or Course Manager in the future as well as proving invaluable to him in his current position. He also feels that environmental management is the key to the future of the industry and that his education will support his thinking on the subject.

Name:	lan Somerville	
Age:	39	
Position:	Course Manager	
Golf Club:	Heaton Moor GC	

Course undertaking: MSC in Sports Surface Technology, Cranfield University

Reasons for undertaking Course: The course will enable lan to achieve a higher understanding and gain more knowledge of sports surfaces. In addition to benefiting lan himself, he feels that BIGGA also benefits for having higher qualified members, thus giving the Association a higher profile within the industry. The scholarship enables lan, who is married with four young boys, to take on the course when otherwise financial restraints would have made it impossible.

NEW PRODUCTS

POWERBRUSH COMPANY

A brush and collector which is at home whether sweeping hard surfaces or grass areas is exclusively available from the Power Brush Company.

Built to a robust construction, Power Brush produces two commercial sweepers, the "850" for narrow pathways and the "1010" for more open areas.

Power Brush Machines are fully hydraulic on traction and brush drive which keeps maintenance to a minimum. A differential on the drive axle provides pinpoint turning, allowing Power Brushes to quickly and efficiently clean in and around obstacles where larger units, such as brush attachments on tractors, simply will not go.

Forward and reverse is a feature of Power Brush Machines, which have sufficient power to pull a ride-on-seat and operator where large area coverage is required. Hydraulic powered side brushes can be fitted to Power Brushes to provide close edge cleaning and gully brushing.

When collectors are fitted a lever and pivot mechanism ensures minimal physical effort is required to empty without removal.

Several brush options offer vigorous or gentle brushing ability. Equally at home cleaning car parks, roadways and paths, Power Brush Machines when fitted with grass tyres and grass rollers are increasingly being used by grounds workers to cope with such tasks as collecting thatch, rabbit droppings and soil cores from grass areas

For further information Tel: 01204 465434 or email sales@powerbrush.co.uk web: www.powerbrush.co.uk



GLENMAC INC

The Harley Tractor Power Box Rakes measure 60, 72, and 80 inches. Mounted on a tractor of 18 to 75 hp, they offer the ultimate in maneuverability in site preparation.

Manufactured by Glenmac Inc the Harley units attach easily to tractors with a 3-point hook-up and a quick hydraulic coupler. It simulates the action of a box scraper by dropping heavy-gauge plates at each end of the roller to trap and gather stones and debris for piling and pick-up.

Its bi-angular construction permits windrowing to either the right or left, speeding up the job of site preparation.

It can be used for a variety of time-consuming tasks gathering debris and stones for piling and pick-up, de-thatching, and removal of old sod. Harley's power roller system is equipped with pure carbide teeth that easily bite into compacted soil.

With one pass, the rakes create a soft, fluffy final finish that makes an ideal seed bed. For further information Tel: 800/437-9779, Fax 701/252-1978, e-mail:

sales@glenmac.com

SUPERVAULT MH

With the launch of the Supervault MH in Western Europe there is now a feasible above ground alternative available for bulk storage of petrol, long the province of below ground tanks.

Traditionally petrol has been required to be stored underground, but this system has recently encountered a variety of scrutiny mainly relating to accessibility for fire control and the product's inability to absolutely guarantee the prevention of soil and groundwater contamination in the event of a tank leak. Although modern electronic monitoring equipment can indicate the presence of a leak, the earliest warning of a problem is when the leak detector activates, usually signifying that ground contamination is already underway, leaving excavation and replacement of the leaking tank as the only option.

In an effort to eliminate the concern for potential environmental contamination, and the associated liabilities, many end-users have started opting for the benefits of aboveground storage tanks. The Supervault MH is a multi-hazard rated, fully bunded tank developed in the USA in response to environmental concerns.

The attractions of an above ground facility are evident in that it is not only clearly visible at all times but also dramatically reduces the disruption and costs of the extensive civils works associated with below ground tanks.

The Supervault design is fundamentally different in that true secondary containment is achieved utilising steel inner and outer tanks with the interstitial space filled with a lightweight, concrete based insulation. Such is the reduction in weight that units up to 70,000 litres are readily transportable.

The Supervault MH is the first tank to pass the stringent safety requirements of the US Uniform Fire Code Standard A-11-F1 and the South West Research Institute Standards 95-03 and 95-01, achieving both multi-hazard and 4-hour fire rating.





BLAKEDOWN

Rootzone modification and drainage improvements are being achieved where 'Nutrovate – Ecological Turfgrass System' – is being installed into all sports turf surfaces.

Nutrovate is a natural mineral possessing a Cation Exchange Capacity greater than 150 milliequivalents/100 grams (meq/100 gm) of product.

Nutrovate has a molecular structure of aluminium and silicate that is microporous with an extensive internal surface area that is responsible for its high performance characteristics.

Nutrovate assimilates nutrients held (immobilised) on soil colloids and also by the affect that pH has on the availability soil nutrients. This moderation reduces nutrient deficiencies caused by high or low pH levels.

Improved efficiency of plant food utilisation and reduced leaching of nutrients optimises fertiliser material and application costs.

The addition of Nutrovate improves the CEC, drainage/moisture retention and soil texture without increasing the the organic matter content. A 10% inclusion rate added to a pure sand rootzone increased the CEC by over 25%.

Working to a depth that connects into existing drains improves and maintains infiltration rates; likewise, when a compacted surface is relieved and an open surface created movement of water and air is enhanced.

For further information Tel: 01295 266600 Fax: 01295 277700 marketing@sportandplay.co.uk www.blakedown.co.uk



COURSE CARE

Already proving very popular in the USA, the Smoker's Cease Fire has been launched in the UK and is being marketed by Course Care.

It is an attractive, yet safe way for people to discard their cigarette ends and, being designed to accept these and no other waste, reduces the risk of fire hazards. The Cease Fire also eliminates the need for containers full of sand or drums that are often used as rubbish bins, increasing the chance of fire.

Available in five colours to tone in with surroundings, the Smoker's Cease Fire incorporates an innovative design that limits the flow of oxygen to safely and effectively

extinguish cigarette ends. No need to stub them out – just drop them in! Made from flame retardant material needing little maintenance, The Smoker's

Cease Fire is available by mail order from Course Care at £90 + VAT delivered. For further information Tel: 01535 611103 Fax: 01535 611546

e-mail: info@highspeed.co.uk



HYDROSCAPE

In recent years there has been an increased use of irrigation systems to maintain sufficient plant-available water, particularly on sand dominated golf greens. Much of the irrigation water used in the UK is of an alkaline nature, having a higher than neutral pH level while holding high levels of carbonates and bicarbonates and its regular use causes a significant increase in root zone alkalinity. This, in turn, leads to problems of drainage, fungal disease, weed grass growth and surface casting by earthworms. Such alkaline water can be used safely if acidification of the irrigation water takes place as a means of maintaining soil pH within the optimum range for fine turf growth.

Traditionally, this practice has been carried out using acid injection systems that have proved expensive to both run and install, with the added Health and Safety issues created by the handling of acids.

Development of the Sweetwater system can now revolutionise the way golf course management approach this problem, with both a lower initial investment and running costs, a safer environment and more precise control over pH levels.

Designed as an add-on to existing irrigation systems, the Sweetwater Solution unit comprises of a sulphur dioxide generator linked to the water extraction source, albeit a borehole, reservoir, lake, pond or storage tank, enabling the modification and control of pH levels in water used for irrigation purposes and, subsequently, absorption into the fine turf root zone. If, for example, the golf course is built on alkaline soil and/or the irrigation water has a higher than neutral pH, the Sweetwater Solution generator will, by modifying the characteristics of the water, improve the characteristics of the soil, encouraging deeper root penetration and creating ideal conditions in which acid loving grasses will thrive. In addition, the Sweetwater Solution generator reduces the need to apply fertilisers by helping grasses use nutrients and micronutrients more effectively and provides sulphur, the fourth major nutrient, in a soluble form. Ultimately, as the soil plant water relationship becomes more efficient the volume of water required to irrigate successfully is reduced. Tried and tested, sulphur dioxide treated water not only improves water penetration it also helps relieve topsoil compaction and minimises the use of wetting agents.

In addition to reducing soil pH the sulphur dioxide treated water controls algae growth in reservoirs, lakes and ponds, not only improving their appearance, but also reducing the risk of algae build up in irrigation pumps, valves and sprinkler heads.

For further information Tel: 01425 476261 Fax: 01425 472380 E-mail: peterr@hydroscape.co.uk



TALKING HEADS CHEMICAL APPLICATIONS

Compiled by Malcolm Huntington MBE

2	Name: Course: Region: Course Type: Staff:	Kenneth Harper Meldrum House Golf Club Scotland Parkland 18 holes, plus large practice areas Head Greenkeeper, plus six, plus three in summer	Relay Turf, a herbicide which controls all broad leafed weeds.
	Name: Course: Region: Course Type: Staff:	Mike Goodhind The Tytherington Golf Club Northern Parkland 18 holes Course Manager, plus five	A difficult question, but I would say a herbicide. We use a number of different weed killers, among them Relay. Spraying is done cheaply and quickly by contract.
	Name: Course: Region: Course type: Staff:	Kim Blake Fulford Heath Midland Parkland Course Manager plus five	A herbicide called Headland Relay which controls clover exceptionally well in addition to other broad leafed weeds. It is relatively cheap.
6	Name: Course: Region: Course Type: Staff:	Craig Fudge Kendleshire Golf Club, Bristol South West and South Wales Parkland, 18 holes Course Manager, plus seven	Intrepid, a herbicide which sorts out all the broad leaf weeds. I use Tritox on tee banks.
	Name: Course: Region: Course type: Staff:	Chris Toop Langley Park Golf Club, nr Beckenham South East Parkland 18 holes Course Manager, plus five, plus mechanic	Rimidin to control fusarium, coupled with Integrate, a Mascot product which improves soil condition, aeration and water percolation which has made a big difference to our course.
	Name: Course:	Paul McFadden Strabane Golf Club. Co Tyrone	A fungicide called Daconil which controls fusarium. Without it we would be wiped out. I spray two to

three times a year.

Region:

Staff:

Course type:

Northern Ireland

Parkland, 18 holes

Course Manager plus three