

# IT'S GIRLS' WORK TOO

Most men find themselves dwarfed by Tracy Ruane. Not that she's an exceptionally tall person – tall 'for a woman'. But then, 'for a woman' she has an exceptionally unusual job: At 29, she's head greenkeeper at Oulton Park Golf Club in Leeds – one of only two women head greenkeepers in the country. She is overflowing with enthusiasm for her work and in this she encapsulates the pride and optimism of the small body of women greenkeepers working in this country.

The male-dominated golfing establishment is generally perceived to be very hostile to the idea of women playing the game on an equal footing with the men. This could also be said to be true of the golf professions, given the tiny percentage of women, even in the USA, who work in the industry as specialists, but the few who have been given responsibility as greenkeepers are witness on the whole to the fairness and generosity of their employers, who have begun to reverse the trend of discrimination by appointing them.

Apart from Tracy Ruane, Gerry Wigley is head greenkeeper at Costessey (pronounced Cossey) Park Golf Club near Norwich, and Jane Ryan is assistant head greenkeeper at Abbeydale Golf Club near Sheffield. They have all taken different routes into the profession. All attest to having made a kind of 'discovery'; as Gerry put it, 'I never knew I liked grass so much'. Never knew, that is, until she did an intensive, full-time course in horticulture for two years at Pershore College which opened up a whole range of new options to her – favourite of which was greenkeeping. You couldn't really get a much greater acreage of grass anywhere other than a golf course to satisfy a love of grass.

Tracy Ruane's moment of truth came during a spell of greenkeeping during the second year of her four-year Leeds City Council horticultural apprenticeship, when she was posted to Gotts Park golf course in Armsley, West Leeds. 'Before I went there I'd always thought I'd be a gardener, but after I'd been at Gotts a while, I thought, no, this beats gardening hands down.' She asked to be allowed to stay on in greenkeep-

**How come that Britain has only two female head greenkeepers? MAJA MIHAJLOVIC examines the changing attitude towards women on the golf course**

ing for her third year. The apprenticeship involved rotating from year to year between gardening in parks, greenkeeping, arboriculture and work on the tree gangs with, finally, a year in nursery work, but instead of going onto the third stage she was sent to Temple Newsham golf course for a few weeks to see how she got on with it. She ended up staying 18 months. 'Luckily for me there weren't many people that wanted to do golf. The lads wanted to work with chainsaws and wear the ear muffs and ballistic trousers and the other girls either went into the parks or nurseries. For me it was golf.'

Jane Ryan was a farmer's daughter before meeting and marrying a greenkeeper and in so doing, being forever converted to the religion that, for many, is golf. According to legend, she bad-

gered the committee where her husband was employed as head greenkeeper until they took her on temporarily for 25p an hour. She too was allowed to stay on – that was more than 15 years ago. She and Paul, her head greenkeeper husband, work successfully together at Abbeydale with their small team of men where they have been for nine years.



Tracy Ruane: 'I have not been discriminated against at all'

'So', the people ask, 'what do women greenkeepers do when they want to go to the toilet?'. The question may seem childish but in one sense it has a value.

Any club which tries to provide its greenkeeping staff with the best sanitary and other facilities it can afford is one which is interested in the morale and well being of its men. If it values the work they do, the comfort of its women will be taken account of in the same way, and at Oulton, Tracy Ruane con-

firms, the facilities are excellent.

Tracy is very proud of their mess room and she, in fact, has her own separate bathroom. She was also able to influence the City Council into providing her with a two-way radio in case she needed to contact a manager urgently, as she had cause to when an elderly golfer died out on the course. This prompted them into thinking of the security of the women that work for them outdoors in different parts of the city, and they have now supplied their female workforce with rape alarms.

The really striking thing about Tracy Ruane, however, is her powerful optimism and unshakeable confidence in her own and her team's ability. There is no reason why she shouldn't be confident, but looking at the record and seeing that she is the sixth head greenkeeper at Oulton in the last two years, you have to admire her guts. This time there is the feeling that Leeds City know they have the right woman for the job.

Her relationship with the municipal system has been an extremely fruitful one. She is in no doubt of how just they have been with her: 'I can honestly say I have not been discriminated against at all, and I don't think that would have happened if I'd worked on a private course. I've been given the chance to train all the way.' She got her job with the Leeds City Council on leaving school at 16. It was her 'first and last' interview. Since discovering her vocation, she has worked for 12 years on the city's fine municipal golf courses, and now, as contractors for the City Council, she and her lads are in close touch with their contract managers, able to phone through whenever they need to pass on information or gain consent for work to be done. The managers come out regularly and discuss work in progress with all the greenkeepers working at Oulton and Tracy is justly proud of the relaxed and productive relations they have with them. 'My management don't isolate themselves from the workers, which is nice, they come out onto the course and they know their ideas.'

Tracy has four men in her team. The oldest is 51, the youngest 21, the others in their mid-20s. The course in their care is a new one

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designed by Dave Thomas and has only been open for two years. Tracy thinks it opened far too early, before it had adequate chance to establish and, with an average of 70,000 rounds per year, the problems in maintaining playing conditions have been enormous and have seen off several predecessors. They are also working on bringing a short nine-hole course into play at the same time, and on the day I visited building work was in full swing on the conversion of an old hall and other buildings to a multi-star hotel and leisure complex.



**Jane Ryan: badgered the committee until they took her on**

Hence her excitement at being involved in the scheme from so near the beginning. It is an excitement which she thinks she has been able to communicate to the lads. Of course the relationship of a head greenkeeper with his or her staff is an essential one.

Tracy explained to me how much she admired the way her old boss, Eric Garlick, headed his team at Gotts Park, where she worked for eight years. His fairness, the way he listened to his staff, giving them credit where due and never pulling rank – these are the principles she brings to her style of management. She admits having had to steel her nerves at times before giving instructions, especially at the beginning when she didn't know her staff. She gives much of the credit for getting it right to Eric Garlick, but she is helped in this by a considerable amount of personal charm. If her lads come to her all the time now with ideas and suggestions and discuss work over breakfast, lunch and tea instead of reading the paper, it is a symptom of the trust they have in her and the enthusiasm for the job she has managed to pass on.

Already they are beginning to feel they are achieving high standards; Another municipal course nearby had to close after six weeks of rain – they were able to

keep Oulton open. 'I've managed to excite my management with the idea that we can do it, because I think they started to think, 'What are we going to do with Oulton? It's just hassle, a lost cause...' It's a really good feeling because I know it's going to happen, I have full confidence, and my lads do now – we know we can do it.'

Asked about golf and the playing of the game, both Tracy and Gerry add their voices to the debate on the side of non golfing greenkeepers. They do play, though unenthusiastically, and sometimes, according to Gerry, downright bad temperedly. As she puts it: 'Being a greenkeeper doesn't make you a better golfer, and being a good golfer doesn't make a better greenkeeper. I'm sure that there are excellent golfers that are greenkeepers but I think that too much playing the game takes away something of the art of the greenkeeper.'

Few people are lucky enough to hit upon the right job for them first time, and unlike Tracy, Gerry Wigley worked in catering for many years, before indulging her interest in gardening by doing a job in a nursery and subsequently taking up the course in horticulture at Pershore. She has three children ranging in age from five to 18 and her husband, Ray, who trained as a systems analyst, now works as a greenkeeper alongside her at Costessey.

Gerry Wigley is more low-key in her approach than Tracy, but the conviction is there just as strongly. For a head greenkeeper she has relatively little experience behind her, but the intensive and in-depth education she has had, followed by two years' on-site training alongside two experienced greenkeepers has fuelled the same indomitable spirit that Tracy shows.

Problems of a different kind beset them at Costessey, which is a private club owned and run by the developer, but the team of four men, Ray included, have a similarly co-operative and understanding relationship based on a good team spirit – something of a family atmosphere. The age range is very similar to that of the team at Oulton, the younger men being aged from 18 to 27. A river runs through the site and as the water

table is high, they suffer very much from flooding during extended periods of rainfall, although they usually manage to avoid closing the whole course.

The distinctive thing about Costessey is the extent to which Colin House, the owner, is involved in the co-ordination of the club's responsibilities to the upkeep of the course. There is no green committee or green chairman for Gerry to present her reports to – she deals directly with Colin on issues of purchase and policy. They are both ambitious for the best, working closely together, and she thinks that, as someone who had no experience of golf course development before Costessey, 'he's done pretty damn well for his members'. It is these direct communication links that give both Tracy and Gerry the support they need to run an effective programme for the golf course. Gerry advises on seed mixes and fertilisers to use and they discuss the regime together whenever necessary. She consults him as the person with the final say on dreaded course closures, but the fact that advice is freely given and received is a sign of mutual respect that seems to belie the sexist reputation of the private golf-club's environment.

Then again, Colin House, or Leeds City Council, or even Abbeydale Golf Club, may well not be typical of most employers of greenkeepers. The old argument that money and training would be wasted on women because they might become pregnant doesn't wash with them. They see the dedication their staff have shown, men and women, and let that speak for them. When Tracy Ruane says 'If I ever stop looking forward to going in to work in the morning, I'll go and do something else', you believe her. It is true though that, as she points out, greenkeeping has generally not been a job that women want to do: they usually have not been brought up to think they could or would want to do it. Lorna Tyson of Myerscough College is one who believes that there are young women around in greater numbers now who would genuinely benefit from increased opportunities to enter the profession. She is on the steering committee of the BTME and sees

improving contacts with schools as a way of communicating the possibilities to young women choosing their careers.

In my conversations with Tracy and Gerry, we touched on the question of why it is widely held that such a job is no career for a woman. There are many women gardeners. They seem to have become acceptable earlier, and as Gerry points out, women often take an active, if not dominant, part in the gardening at home. While no-one would dare to suggest any more that greenkeepers are glorified gardeners, least of all the three women I spoke to who know all too well how false this is, it surely is not such a huge leap of the imagination for the stalwarts who can accept the idea of women gardeners to accept women greenkeepers? Well, actually, it is. Golf tends to become a political thing, crystallising social attitudes. But things are changing. There will always be the stalwarts, male and female. The women all stress that they work in a man's world, that they have no illusions about trying to change attitudes on their own. They enjoy very good relations on the whole with their male colleagues, their employers and the male golfers out on the course. They do not seem to take a defensive attitude,



**Gerry Wigley: intensive and in-depth education**

do not in fact seem to have been obliged to do so. Gerry tells me that the golfers are nicer to her than they are to anyone.

Without the benefit of any hard evidence, it appears fair to assume that the changes in attitude originate in a greater appreciation of the skilled specialist that the greenkeeper is now seen to be. This and a less condescending and snobbish attitude on the part of golfers to what used to be termed a 'manual' or 'labouring' job must reflect a stronger concern for the health of the course itself than for 'propriety'.

And when it is realised how

# Tests themselves go in for analysis

energetically and effectively these women carry out their task, and on top of that, how they love their work and take pride in the detail as well as the broader picture – several male greenkeepers have referred to the quality of the finish women give to their work out on the course – the confidence of the three employers who have placed Gerry Wigley, Tracy Ruane and Jane Ryan in positions of responsibility is utterly justified.

It is not that they are more able than their male colleagues. None is immodest enough to claim such a thing. It is, as Tracy explained, that although at times they may have had 'to work 110% to be 100% good, whereas a lad could work 90% to be seen to be just as good', they know they are as good, and they have proved it. When Tracy went to the BTME in January everybody shook her hand, people she'd never met, and then she was introduced to the Duke of York, she knew she'd achieved something unexpected, and it has left her – and her employers – riding on the crest of a wave.

In her own words, 'When I was made head greenkeeper I thought, wow, this is brilliant, I'm dancing! I'm still dancing, I still keep having to tell myself. But just look what's happened in the last six months: I've been in every paper, I've been on television, I've met the Duke of York, I mean, my God! And the pride the Council have now, it's really good, I mean, good for us all – for me, for the lads and for the managers'. And, I would suggest, for women in green-keeping.

It is sure that the congratulations she received extend equally to Gerry, who has been steadily working away as head greenkeeper in Costessey for about a year now, and it is equally sure that other women greenkeepers can take heart from this mark of official recognition by the figureheads of the industry.

■ The author, Maja Mihajlovic, is a freelance journalist with a special interest in golf course architecture and fine turf maintenance.

**T**o test or not to test! This is the clear option being presented to greenkeepers by some of the leading commentators in the sports turf industry. Articles in various magazines over the last few months have been either very supportive or very critical of physical and chemical analyses. However, the whole issue is being made more complicated because these commentators are confusing the purpose of testing with the methods and interpretation of analyses.

It is unreasonable to maintain the view that testing has no relevance to a greenkeeper's planning because of an experience with poor and erratic results produced by difficult and inappropriate test procedures. Nor is it reasonable to make claims for testing that owe more to the experience of the greenkeeper in developing the right management strategy for their course.

To make any way forward therefore, it is necessary for greenkeepers to have a realistic understanding of what testing can reveal about the course. From there it is possible to determine the most suitable test methods to provide the required information.

Stated simply, testing for the physical and nutritional properties of the rootzone is necessary to build up a record of the changes in those properties since the time of course construction. The more comprehensive the analyses the clearer the association that can be made between a measured change and either an improvement or decline in the sports turf.

An analysis does not make judgement about how good or bad the condition of the rootzone is; this only happens when you compare the analysis with the quality of the turf. Testing is valid even when it shows that the rootzone does not meet an ideal textbook description.

This is quite common and it demonstrates that a combination of rootzone material, climate and turf species can adapt well despite contrary opinion. If however, one component of the rootzone undergoes change – as will invariably happen despite maintaining a constant management programme from year to year – then the change can be so significant as to throw the other factors out of balance and a problem in the turf arises.

To illustrate this consider the following scenario, one that may have applied to many courses during the recent prolonged spell of rain. These saturated, cool conditions

lead to a substantial loss of nitrogen as volatile ammonia, and the subsequent imbalance of carbon to nitrogen reduces the manufacture of organic acids in the soil solution.

Less acid activity and lower soil oxygen combine to cause precipitation of nutrients such as copper, zinc, iron, manganese and calcium as insoluble compounds, whilst potassium and manganese are washed through the profile. There may be an increase of a whole pH unit. As a consequence the greenkeeper may observe either a promotion of a less desirable grass or weed species, an increased persistence of disease, or just a general decline of the quality of the turf cover.

It will be obvious to take measures that improve aeration and if necessary correct compaction, but testing would almost certainly be required to show the degree of change in the pH and nutritional status that normal management practices do not easily correct.

## 'Enthusiasm for testing is not often matched by expertise of many labs'

To carry this a step further, the justification for testing and recommending rootzone materials at the start of construction is because we can make some predictions about the way they are likely to change in the early years of the course and thus hopefully begin the management with fewer headaches.

The enthusiasm for testing, however, is often not matched by the expertise of many labs conducting such work and this is where the whole issue comes crashing down.

If our industry intends to follow the American example by testing and recommending suitable rootzone material, then we should be aware of some of the problems that can arise from test procedures as laid down by the USGA.

The methods for determining bulk density and particle size analysis have been long established and there should be no problem in obtaining reasonable reproducibility either by the same lab or by different labs provided they have competent technicians.

The testing for hydraulic properties of the rootzone, which has been the cause of the apparent unreliability of physical analyses to date, can

be easily resolved by substitution for a range of simpler and more accurate procedures.

Chemical analysis appears to be poorly understood by many people in both greenkeeping and the laboratory services. This is obvious because of the emphasis placed on soils as opposed to tissue analysis. To illustrate, let me take up the cause of one well known critic of chemical analysis on the question of suitable phosphorus levels in the soil.

Most of the phosphorus fertiliser applied to soil is very quickly taken out of the soil water solution by forming insoluble compounds with calcium, iron and aluminium components present. Thus if a soluble extract of the soil is analysed it will obviously show very low concentrations of this nutrient.

In reality the soil needs to have a relatively high concentration of phosphorus because plants obtain this nutrient by conducting a series of complex acid reactions in the near vicinity of the roots, a very small area which is quickly depleted. If phosphorus was available only in levels indicated by the soluble extract then it would be unlikely that many soils would support a sports turf.

Tissue analysis however, is a reliable way of showing the availability of nutrients at a given time and by comparing the analyses of similar turf samples it is a much easier way of establishing the range of nutrient concentrations, and therefore fertilizer applications, that are required to support good growth.

Soils analyses should be used to determine if the levels of nutrients are accumulating to a point where inhibition of the extraction of other nutrients becomes possible. This is often the reason for the apparent deficiency of manganese and molybdenum.

In summary therefore, any greenkeeper who has lost confidence in the capacity of physical or chemical analyses should be consoled by the fact that there are both test procedures and experts who can make testing a cost effective and meaningful exercise.

■ The author, Colin Sainsbury B.Sc., is a turf scientist currently working at the new London Golf Club in Kent. He studied soil science and plant physiology at the University of Sydney before embarking on a career which took him throughout Australia, the Pacific Rim and the Middle East. He has worked in Britain over the past 30 months, being instrumental in setting up and running a test laboratory at the LGC.

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AD REF 396

# AROUND THE GREEN

## Keeping in touch with news and comment from the regions

### KENT

You should soon receive details regarding our Spring Tournament at Rochester & Cobham GC, also those concerning a visit on 26 April to the London Golf Club. Joe Paulin, The LGC's course manager has kindly offered to host a visit, which will enable all Kent members to see at first hand one of the major golf construction projects in Europe. As you may know, the two courses at LGC have been designed by Golden Bear Inc., with Jack Nicklaus personally designing one of the courses – the Heritage. The timing of the visit should perfectly coincide with a wide range of activities taking place on the courses, from construction to initial maintenance. It is certain to be an excellent educational experience and opportunity, with perhaps a follow-up planned for next year.

Although informal, we propose to meet in the Horse & Groom public house between 12.00 noon and 1.00 pm. The pub is sited on the left side of the A20, about 3-4 miles beyond Brands Hatch Circuit, heading south towards Maidstone. Not only will this give us a chance to meet, but those who wish may buy a pub lunch or sandwich. For those who choose to go straight to the course, may I suggest you arrive at the maintenance shed complex no later than 1.30 pm. The London Golf Club is located just off the A20 signposted 'Stansted' on the same side of the road as the pub and about 2-3 miles past the Brands Hatch Circuit. For further information call me on 0322 664547.

Those of us who make it through to the regional final of our new Hayter Challenge Tournament will find it strange that BIGGA regional administrator, Norman Exley, will no longer be in attendance. As you may know, Norman passed away in February. His enthusiasm and commitment will be missed not only by our region but also at national level by our Association.

For many years Norman suffered from a heart complaint, so apart from sending our condolences to his family we have seen fit to send a small donation from the Kent section toward heart disease research.

PAUL COPSEY

### SOUTH WEST

Happy Birthday Dear Jo-hn, Happy Birthday to you. Yes, 18 February was John Kane's birthday, so what better way to celebrate than win a section event, especially when you have reached the ripe old age of... no, I promised not to divulge his actual age, (but if you multiply thirty by two, and then add two, you won't be far off!) The section event in question, was the early Spring Meeting at North Wilts GC, Devizes, Wilts.

Sponsored by British Seed Houses, we followed our successful formula of golf in the morning and a lecture in the afternoon. Both parts of the day were an outstanding success, the weather relenting to allow some enjoyable golf over a course well prepared by Jon Boorman and his staff. The result of the golf was: 1st. John Kane (Clevedon) 76-6=70. 2nd. Derek Eves (Painswick) 95-24= 71. 3rd. Nick Wilson (Filton) 81-9=72.

Jonathan Franks of British Seed Houses was in fine form after lunch, giving one of the most interesting & entertaining lectures I have ever attended, just the right blend of facts, slides & figures. Well done Jonathan and thanks. Thanks also to North Wilts for their hospitality, to both the indoor and outdoor staff for their efforts, and also to Messrs Avoncrop, Rigby Taylor & County Mowers of Witney for prizes.

The autumn/winter education programme is now complete. That so many have shown the interest and initiative to take this training, and not hide behind

'Grandfather Clauses' and general ignorance of the statutes, has been particularly rewarding. I certainly hope that this training will continue to be available in the future.

Westurf, as if you didn't know, is now only a couple of weeks away, so for heaven's sake get your feet through the gate, visit each & every stand and repay some of the effort which has been put into it. Helpers, stand by!

Finally, with the growing season just around the corner, I'll wish you all happy greenkeeping for 1993, and remind you that there is no need to face problems alone. There is a strong and active Association behind every greenkeeper, help is readily available, so don't hesitate to get in touch with any problems or news, however major or insignificant. That's what the Association is for.

PAUL WORSTER



### NORTH WEST

The penultimate winter lecture, held at Bury GC on 24 Feb, was graced by a good attendance and enjoyed by all. John Hughes of British Seed Houses gave us a very interesting and informative talk on 'Improved Grass Cultivars', including how new varieties become available. On behalf of the section I thank John for sharing his time and knowledge with us.

An interesting piece of news has just come to me: NW section life member, Harry Walsh, and his wife Martha celebrated their 60th wedding anniversary last Christmas Eve. They received a telegram from the Queen and another from the House of Commons via their local MP. Harry and Martha celebrated their anniversary with a holiday in the Scottish Highlands and upon their return found a surprise family reunion had been arranged. It is interesting to note that Harry was national chairman of BGGA in 1972, the Diamond Jubilee of the Association. Harry is 83 years young and still very active, playing golf to a handicap of 22. We all wish Harry and Martha many more happy years to come.

The first golf fixture this year is the NW versus N Wales annual tournament, for which a team of sixteen is required. The match will be played on Monday 26 April at Llanymynech GC, sponsored by GEM Professional. Tee off is 1.30pm, so if you are available, please contact me. The Spring Tournament will be played at Birchwood GC on Monday 10 May, and as this is a qualifier for the Hayter Challenge Tournament regional final (and numbers are restricted) no guests will be allowed – this in order to allow as many members as possible to qualify. A deposit of £10 must accompany your entry form, which must be returned by 3 May at the latest. Tee off will be from 1.30pm and tee times will be allocated on the day. Smart dress is essential – think proud! Applications for the Spring Tournament to: Paul Pearse, 1 Swan Close, Poynton, STOCKPORT, SH12 1HX. If you have any queries – or indeed any news, please contact me on 051 724 5412.

BERT CROSS



### BUCKS, BERKS & OXON

Greetings, all good greenkeepers. Here we are once again at the time of year when everything is going crazy and I seem to be repeating myself – 'so what's different about that', I hear you cry. Not much, unfortunately! Well I'm going to remind you of one or two things anyway, just to keep you going through the never-ending grass and all those ever so constructive comments from the members.

Anyone out there who would like to represent

BB&O in golf matches against the Surrey section, the Mid Anglia section and the section secretaries (could be your chance to get your own back!), please contact our match captain, David Goodchild on 0296 415337. These matches will be held over the summer, starting on 1 June at Stoke Poges GC. There is no handicap limit, so all are welcome.

Also for your pleasure, three golf days have been arranged for the summer, so keep 28 May, 1 June and 11 October clear prior to further information arriving by post.

The committee need you to come up with ideas for social events you would like us to stage in the next year, also ideas for next year's lecture programme – call or write to me with your input – please.

On the lecture theme, I would like to thank Stan Robinson of the Woodley Branch St Johns Ambulance for giving us a rivetting lecture on first aid, staged at Sonning GC on 23 February. Our thanks to Sonning GC for their generous hospitality, a very educational night was had by all.

At the moment we have a special offer – a selection of BIGGA ties in light blue or red – at a knock-down price of just £4.00. If you want to look the real 'pro at a section or national event (or even at your golf club) give me a call and place an order NOW!

RAY CLARK



### CLEVELAND

Carl Crocher, who recently worked in Germany, has just completed a spell at Darrington GC before returning to take up a post as greenkeeper at a club north of Hamburg, with views toward Jutland, Denmark.

Now is the time to take a stock check, get quotations and place orders for delivery in advance of events. Divoting fairways in April is vital: five men, five days (except par three's). Greens compaction around flags is serious: with 500 players out between Friday and Monday (average weight 10 stone = 31 tonnes), rollers on greens are not necessary. Hole cutting more often is desirable, together with weekly solid tining in summer and weekly slitting in winter – or Vertidrainage once or twice a year. Drainage is absolutely vital.

The outing to GEM Professional Products in Lancashire was a success and we were well received by senior GEM staff, witnessing fertiliser production at first hand. For a family firm they are to be complimented on being so up-to-date and we offer them congratulations on obtaining BS750.

An HND course in Greenkeeping is now on offer at Askham Bryan College.

BRUCE BURNELL



### NORTH SCOTLAND

The section sends Kenny Anderson all the best for his new job at Sheringham in Norfolk and congratulates Dale Robertson on taking over from Kenny as head greenkeeper at Newmachar, near Aberdeen. I recently attended the section secretaries/regional administrators meeting at head office. This was very worthwhile with many discussions and ideas being bandied about. The book-keeping workshop was the most discussed, with much learnt in a short space of time.

The 200 Club tickets are slowly coming in, though these should all be sold by now. Please send your money in immediately – the first draw takes place next month.

The section library is up and running with ➡ 46

45 → the following books available: • Turf Management for Golf Courses, James Beard. • Turf Management Handbook, Freeborg. • Golf Course Presentation, John Hacker and George Shiels. • All Year Round Golf, Jim Arthur. • Greenkeepers Training Committee Manual • The COSHH Pesticide Regulation Book. These are available by phoning Gordon Moir on 0334 74021, or me (Iain MacLeod) on 0862 894402. We hope to add more books during the year, so if any member knows of a greenkeeping related book, let us know and maybe we will add it to our lists. Also, anyone wishing to donate a book or books to the section please get in touch.

The Nairn Dunbar course is currently undergoing some changes. The 'Hill' holes over the road are being scrapped to make way for housing and three new holes have been constructed and will come into play in time for the 1994 British Amateur Championships to be played at Nairn. The old 6th, 7th, and 8th were, respectively, a par three followed by two short par fours. These now are replaced by a 509 yard par five, a 400 yard par four and a 131 yard par three, increasing the overall length of the course from 6431 yards to 6713 yards and par from 71 to 72. Grass Technology International are the designers and Souter's of Stirling are the main contractors. One of the most striking features of the extension is a bridge built at the 11th tee by a local man, using the red granite from a local quarry and employing the dry stane dyking method. The new holes come into play after the old eleventh, which now becomes the eighth. This will give the course a traditional links design of nine holes out and nine back. Some of the design features incorporate the style of James Braid, designer of Gleneagles, and those of Dornoch man Donald Ross, the father of American golf course architecture. The greens, tees, aprons and bunker surrounding were turfed, with fairways being seeded in a project costing in excess of £150000. We wish Derek Roy and his staff all the best in this year of change, having to maintain the existing course while settling in the extension, but still hope to see them at section outings if time permits. The section are hoping to organise a trip (in conjunction with Souter's and Nairn Dunbar) to visit the holes during the settling in period this year.

In conjunction with Allan Miller and Pat Allan of Stewart's, two organised tours have been arranged to visit Stewart's turf farm and works. The first takes place on Tuesday, 20 April, when a bus will leave from Inverness and take us to the turf farm, where we will be given a guided tour. Lunch will be provided and we will then visit the 'Stronghold' works at Dalkeith before returning in the evening to Inverness. The same itinerary will apply on Tuesday 27 April, though this time the bus will leave from Aberdeen. As guests of Stewarts, there is no charge for these trips, but members should note that numbers are limited - so it is a case of 'first come, first served'. Members naturally have priority, but if there is space, green chairmen etc. will be most welcome. Time is not on our side so please phone me on 0862

894402, especially to reserve your seat for the bus from Inverness. Please support this initiative by one of our patrons. Finally, welcome to two new members Duncan Adams from Royal Aberdeen and William Duggie from Inverness.  
IAIN MACLEOD



## SURREY

February seemed to have flown by and with no golf event or winter lecture to report, I welcome this opportunity to remind members of our forthcoming Spring Tournament. This year the venue for the 36 hole medal is Coombe Hill GC and the date (please note, this is on a Tuesday) is 20 April. This is a qualifying event for the Hayter Challenge Tournament. Please remember to check your current handicap, carry your BIGGA membership card and, as for all of our events, dress appropriately in the clubhouse and on the course. The closing date for entries - 6 April - will in all likelihood have passed by the time this magazine falls on your doormat, though it must be noted that you will have had ample opportunity to enter, so late entries are likely to be rejected.

Please note that the Veterans Cup will be played for at the Autumn Tournament.

Finally, may I say how fitting it was to see Bert Watson featured in the February issue of Greenkeeper International, especially so soon after his

# AROUND THE GREEN



being elected president of the Surrey section.  
ROGER TYDEMAN

## NORTH EAST

Grateful thanks are extended to the Ryton Gravel Company for an invitation extended to all section members to visit their quarry on 25 February, followed by a visit to the Caistron Nature Reserve. In thanking them I must also apologise for what was a particularly measly turn-out, for only eight people bothered to turn up! Thanks to Mike Bayley of Ryton Gravel, not only for showing the visitors around but in going to the trouble of providing soup and sandwiches. I hope that my next report will indicate a better attendance to the Abcon Top Dressing site and that it will not be necessary for me to apologise yet again for the indifferent attitudes that appear to be prevalent within our section membership.

May I remind all NE section members, especially those who enjoy playing in golf events, that without the generosity of suppliers such as Ryton Gravel and Abcon we would be unable to provide golf prizes to the standard that has become our norm. My message therefore is simple and crystal clear: AT ALL TIMES SUPPORT THOSE WHO SUPPORT YOU.

May I welcome the following new members: David Sharkey (Ryton GC), Owen Parker (Arcot Hall GC), Alan Harrison and Gary Needham (Garesfield GC), Gary Donnison (Gosforth GC), Steven Richardson (Birtley GC), and John Cheesman and Edward Brachtvogel (Slayley Hall G&CC).

In conclusion, may I again thank Terry Charlton (Turf Care) and David Dixon for providing the coach that took section members to Harrogate for the BTME in January. Unlike the aforementioned Ryton Gravel trip, this was well attended and I am bound to repeat the obvious: - if our members are picked up we have better support. Better still, if anything is free they are out in droves!  
JIMMY RICHARDSON



## NORTH WALES

Our first competition of the season will be held at Curzon Park, Chester on 22 April. Application forms are available from T Adamson and D S Proctor and must be returned with payment (£11.00 for members and £12.00 for guests) before 16 April 1993. Forms arriving after this date will not be accepted. Teeing off will be from 10.00 - 11.40 am.

Llanymynech is the setting for our annual match against the North West section on 26 April, with teeing off from 12.00 noon - 1.15 pm. Those wishing to be considered for the team should contact 'yours truly' on 0248 713490. This year the match will be sponsored by Gem Professional.

Congratulations to D Parry on his appointment to head greenkeeper at Prestatyn Golf Club, following the departure of N Pearse to Hydeberg Golf Club in Germany. I know I speak for the whole committee in wishing Norman every success in his new appointment.

Congratulations also to P Gabriel and J Chung, promoted to senior first assistant at Cardon Park, to J Moody on his promotion to head greenkeeper at Chirk Golf and Country Club, and to A Sharp on his new appointment in Kent.  
D S PROCTOR

## SOUTH COAST

Winter lectures have been reasonably well attended, although the January meeting at Came Down Golf Club was poorly supported, mainly due to the atrocious weather conditions. However, my thanks to Gwil Thomas from Lloyds of Letchworth for his firm's presentation.

In February, Jim Arthur gave a very enjoyable talk,

much appreciated by members present.

These meetings are arranged not only for their content, but also as a forum for local greenkeepers to meet and have a natter. If you've not been in the habit of attending our lectures, you are missing out in more ways than one!

Tournament time is almost upon us, and our Spring Tournament this year is being held at Sherborne GC on Wednesday, 26 May. The format for the competition is a 36 hole medal, though members not wishing to play 36 holes can play just one round. The entry fee will be £14.00 and all applications to play, with handicaps, fee, etc., should be addressed to our tournament organiser: Joe Burdett, 23 Jacobs Ladder, Child Okeford, BLANDFORD FORUM, Dorset. DT11 8EA. (Tel: 0258 861482).

Other section tournaments later in the year are: Summer Tournament, Alresford GC on Thursday, 29 July. Autumn Tournament, High Post GC on Tuesday, 5 October.

Finally, please support Westurf at Long Ashton on Wednesday, 28 April. This promises to be the biggest turf demonstration organised so far and a number of section officials are working hard to make this event successful.

BOB DENNIS

## DEVON & CORNWALL

'THE BEST IN THE WEST AND IT'S FREE'... There are only a few days to go before this year's Westurf Trade Show, to be held once again at Long Ashton, Bristol on Wednesday 28 April. Westurf is RAC signposted from the motorway and when you arrive parking and admission is FREE.

Numerous local & national dealers will be there to answer your questions and you will also be able to see the latest machines being put through their paces on the large demonstration area - which includes a golf green. With all the latest turf care products on show you can't afford to miss Westurf '93.

Our February meeting was held at Perranporth GC on Wednesday 24th, with an early morning frost clearing quickly to allow members to compete on the excellently prepared links for the Avoncrop Trophy. Our thanks to Bill & John Mitchell who presented the course in such fine condition - and it was only February!

John Palfrey of Avoncrop presented the golf prizes to: 1st Clive Browning (Bowood) +4. 2nd Gordon Tamblin (Mullion) +4. 3rd Brian Summers (Carlyon Bay) +3.

The Harrogate Challenge also took place between Brian Summers & Gordon Tamblin, with £50 being donated to section funds by Devon Garden Machinery. The victor was Gordon Tamblin by one hole.

The section presented Jack Moore, head greenkeeper at Teignmouth GC, with a tankard to mark his retirement after over 30 years greenkeeping. We all wish you a happy retirement, Jack.

During the afternoon Mr Peter England of the HSE presented a paper on the new six pack regulations, this being followed by a lively question session. The section presented Peter with a BIGGA tie and thanked him for his paper. The section would also like to thank the captain & committee of Perranporth GC for allowing 75 members the use of their facilities, also to Mr R Pye for looking after the inner man.

Our Guest Day meeting will be once again at Launceston GC on Wednesday 7 July. Tee times will be from 12noon onwards and David Golding, the Association's education officer, will conclude the day

with his after dinner presentation on education. Non-golfers are most welcome to indulge in their usual course walk before joining golfers for the evening meal and David's talk. I look forward to meeting you all at Westurf.

RICHARD WHYMAN



## SOUTH WALES

Those people expecting to see Huw Morgan's name at the end of this column might just wonder what's going on when they see my name in print. To set the record straight, after being elected to the post of section secretary for South Wales, Huw accepted a new job as course manager at the Wilderness Golf Club in Kent. He took up his new position on 15 March and his family will be joining him soon. The section wish him well for the future, whilst personally I'd like to thank him for dropping me in it at the deep end! Our Winter lecture/seminar programme will

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**KATE YORK delves deeper into the mysteries of dry patch, in this her concluding article on the disease**

# A CASE OF DO

The first of these two articles, published in last month's Greenkeeper International, outlined the typical symptoms expressed in areas affected by dry patch and detailed results obtained from a comprehensive questionnaire survey of golf courses across the UK, together with a comparison between the chemical and physical soil characteristics of affected and unaffected areas.

This article concentrates on results obtained from studies involving the possible correlation between automatic irrigation systems and the location of areas affected by dry patch on specific greens and the progress made to date in elucidating the identity of the water-repellent materials which are known to be present in soils affected by dry patch. Also included for interest is information relating to the discovery that certain fungi are capable of producing water-repellence in soil which, prior to their colonisation, showed no such tendency.

## Dry patch distribution and automatic irrigation systems

It is generally recognised that to provide sufficient water to an entire golf green, without over or under irrigating any area, is almost impossible. High spots and slopes will affect the final distribution of irrigation water on the surface and the underlying soil profile, as will factors such as prevailing wind speed and direction. However, automatic irrigation systems can be set up to give as near as possible an even water coverage under 'normal' wind conditions and applying water at optimal times during the day, when required, reduce to a minimum the problems which can occur with under or over watering.

With this in mind, an investigation into the possible correlation between areas of a golf green affected by dry patch, relative heights across the green and the volume of water deposited by the installed irrigation system, was completed for one representative green on each of three courses. The three greens selected for this study varied in their expression of the symptoms of dry patch. The first green was affected in large areas which were generally restricted to the edges of the green. The second showed several almost parallel strips of affected turf along the length of the green, from the apron towards the back edge. Finally, on the third, the symptoms appeared as interwoven ribbons of affected areas across the entire surface.

Data relating to the relative

height changes across the surface of each green were recorded by using an ordinary surveyors level, positioned at 1 m intervals, which were identified by small marker pins placed on the putting surface. These data were used to produce a three-dimensional representation of each surface, identifying the presence of high spots, slopes and ridges. At 2 m intervals across the green, the rate of water deposited by the irrigation system was calculated by collecting the volume of water in plastic plant pot holders, which fell at each point during a given time period. The results were used to prepare a diagram which identified the rate of irrigation water falling at each 2 m interval across the surface of each green under observation. The third assessment completed on each green identified the percentage of the surface area affected by dry patch in each 1m<sup>2</sup> as marked out on the greens' surface using pins shown in Figure 1. Using the information recorded, diagrams were completed which identified the exact location and severity of areas affected by dry patch across each green.

Because of the amount of data collected in this investigation, a complete analysis of the results is not possible in this article. However, a general review of the findings may prove useful to greenkeepers. On the first green identified, where the condition existed as large affected areas generally around the edge of the green, there did appear to be a significant correlation between where the symptoms occurred and the low water availability to these areas and associated ridges, slopes and high spots. A similar situation was observed on the second course in which the symptoms of dry patch followed the central area of the greens' surface, although a slight difference existed in that low levels of irrigation were calculated across the entire central part of the green, as no ridges or slopes existed in this situation. Finally, on the green identified as expressing ribbon-like symptoms across the surface, no significant height differences were detected on the green (ie. it was almost completely flat) and no correlation could be detected with changes in irrigation rates at each assessment interval.

In summary, therefore, it is necessary to identify the facts which have been highlighted from this study. High spots, ridges and slopes may support areas which have developed the symptoms of dry patch, but equally the condition can be expressed, albeit in a slightly different form, across the surface of a

green which is devoid of any significant height variations. Symptoms of droughting are easily confused with those of dry patch because ultimately areas affected by dry patch, which are innately water-repellent, are unable to retain sufficient available water for healthy grass growth. The grass is effectively droughted, not because the water is unable to reach the roots per se, but because the soil which supports the roots is unable to hold any water which passes through it.

The end result is the same for droughted areas as for those with dry patch, but this study clearly shows that although automatic irrigation systems are unlikely to provide an even and adequate water supply to all areas of a green, for whatever reason, the irrigation pattern and green contours themselves do not predispose a turf surface to dry patch. It is likely, however, that if dry patch has developed, both inefficient irrigation and green contours can exacerbate the severity of the symptoms.

## Can water-repellent soils be caused by fungi?

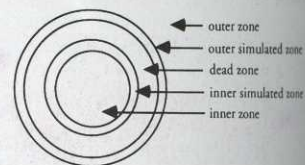
Much speculation has existed over past years regarding the possibility that fungi are capable of directly causing the build up of water-repellent materials in the soil and hence the expression of symptoms associated with dry patch. This study is believed to be the first to show conclusively that water-repellence can be conferred by the movement of certain fungi through the soil profile. Thatch fungi or superficial fairy rings, which are generally caused by members of the basidiomycete group of fungi, have often been thought of as having some role to play in dry patch development. Their usual 'ribbon-like' appearance on affected areas of turf is seen as mimicking the symptoms of dry patch. However, because of the numbers of fungi naturally present in any soil or areas of decaying organic matter (such as the thatch of turf), isolation of the specific causal organism has often proved unsuccessful. Other fungi belonging to the basidiomycete family are, however, more readily identifiable and one such example exists as the Type 1 fairy ring caused by *Marasmius oreades*. This fungus was used in recent studies to identify whether or not a fungus is capable of directly producing water-repellence within the soil through which it has passed.

As with all fairy ring fungi, *Marasmius oreades* moves through the soil profile by means of 'cotton wool' like mycelia, which grows radically

outwards from its origin. For the first few years the symptoms of this fungi are indistinguishable on the turf surface, but as the ring matures the amount of mycelium present within the soil increases and eventually symptoms such as those seen in Figure 2 are expressed. As the mycelium passes through the soil it breaks down organic matter, releasing available nutrients to the grass and hence stimulating grass growth. With time the older mycelium dies and breaks down, thereby releasing further available nutrients to the grass. This process ultimately shows itself in the typical symptoms of Type 1 fairy rings which are shown diagrammatically below.



**Fig. 2: Type 1 fairy ring caused by *Marasmius oreades***



Each of these zones can be clearly identified in Figure 2 and it is this typical expression which has enabled us to study the possible role of this fungus in relation to the development of water-repellence. Soil samples were taken from the inner, dead and outer zones of three *Marasmius oreades* rings at each of the two different sites; one being a golf course having a sandy loam and the second a course with a much heavier clay loam soil. The soil samples were used to obtain information regarding soil moisture content, soil organic matter content, presence of active fungal mycelium and the presence/severity of water-repellence expressed in each of the three zones.

As with the study on irrigation and green features discussed earlier, this work produced a large amount of information which can readily be summarised for the context of this article. In essence what was discovered was that in the dead zone, ie. the zone which contains the highest concentration of active fungal mycelium, levels of water-repellence were found to be severe. This was not unexpected because fungal mycelium, particularly in such high concentrations, is known to repel



# OR DRY

water due to the nature of the mycelium itself. However, it was discovered that soil samples from the inner zone had relatively high levels of water-repellence compared with soil samples from the outer zone through which the fungus had not yet passed. The depth of water-repellent soil varied between the two chosen field sites. On the lighter sandy loam soil, the fungal mycelium penetrated the profile to a greater depth than on the heavier clay loam. Soil samples from the inner zone showed high levels of water-repellence corresponding to the depth of the mycelium in the active part of the ring. However, studies confirmed that there were no mycelial fragments present in the samples taken from the inner zone and in fact, from our knowledge of the growth rate of this fungus, the soil from the inner zone would have been free of active fungal mycelium on average for about five years. This result is important because we now know that fungi have the capability in some way of producing water-repellency as a direct result of their passage through the soil.

## Can we identify the water-repellent compounds in dry patch soils?

The fundamental question being asked in this present study of dry patch as it exists in UK golf greens is – 'what is the identity of the material present in affected areas which causes this repellence to develop?' Two approaches have been taken to provide an answer to this question, these being the extraction of the water-repellent material(s) from the affected soil using specific organic solvents, and a more direct approach to remove the water-repellent material from the surface of affected sand particles, by heating them with a laser beam to a temperature whereby they are made volatile and can be subsequently identified using specific analytical techniques.

This research has been completed in the last few weeks and at present the information obtained from these experiments has yet to be fully analysed. We know that the materials responsible for this water-repellency are present in soils which may show no symptoms, but with time



Fig. 1: Golf green affected by dry patch, showing marker pins, plant pot holders

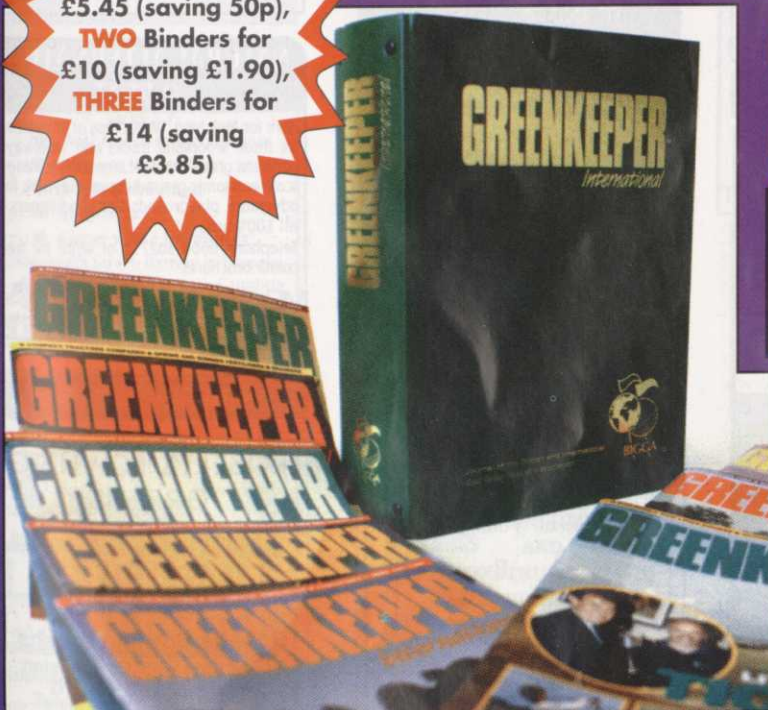
build up to levels which result in the expression of symptoms specific to dry patch. Certain chemicals have been initially identified in soils expressing dry patch, these compounds being 'waxy' materials, which may be responsible for the water-repellency. Although at this time it is not possible to identify conclusively the materials present in soils affected by dry patch, it is believed that completion of analysis still in progress will clearly show the nature of the compounds which build up in affected soils. Ultimately this will lead to the solution of this important maintenance problem.

■ The author, Kate York, is a research officer with the STRI.

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