

With the forthcoming publication of the R&A's Joint Golf Course Committee's specification for recommended methods of constructing putting greens, based on three alternatives, with no compromising mixing from one to another, the whole vexed question of soil analyses re-emerges.

There is no point in setting out standards controlling the materials to be used unless those materials are readily available and their quality can be checked by reliable analysis against the stated criteria. Equally, it is a pointless exercise if analyses take so long that the start of construction would be seriously delayed; if the results were so erratic or illogical that no one could trust them, or if the cost were so high as to prohibit their use in any save very expensive contracts.

The sad fact is there is absolutely no consistency between the results of physical analyses on the same material when analysed by different laboratories.

To be believed, results must be believable! Illogical results, which cannot be either defended or repeated, bring the whole system into disrepute. This problem is by no means confined to laboratories in Britain – nor indeed in Europe. If the USGA Green Section claims that it can rely on only a bare handful of soil laboratories throughout the length and breadth of the States to report consistently accurate results, even when they are working to published standard methods of analysis, we are unlikely to be any better here, more especially because work on standard methods of analysis is by no means complete – and furthermore even when it is I will hazard a guess that methods produced and stipulated by one lab. will be disputed by others.

Matters have come to a pretty pass when check samples sent to a number of laboratories are reported not just with mild variations, but unbelievable ones! In one recent and obviously anonymous case, samples were analysed three times, the first two batches of results being so wildly 'out' that they could not be believed and the last, not much better, was sent back in desperation at the delays together with a huge bill (which was never paid!) showing variations on the same green of over 3000%! In another equally well authenticated case, showing quite illogical and indefensible results, the suggestion was made that the first (illogical) reports should be scrapped and a new start made – presumably analysing again and again until the desired or expected figures turn up!

This may be dismissed as teething troubles, to be overlooked by those who know what they are talking about, but it is much more serious than that. In our increasingly litigious society, any dispute capable of being settled a decade ago by get-



Soiled again

ting round a table or knocking heads together goes with minimum delay to the lawyers, who have never been known to suffer from any inability to make decisions, however little they may know about the technicalities.

It is a far from fanciful possibility for a contractor and/or architect to be sued for supplying unsuitable material in a golf course construction contract, based on soil analyses of samples sent to a given laboratory by the dissatisfied employer. Then fresh batches of the same material are sent to another laboratory – or worse still, to the first one – which then show satisfactory figures. Aggrieved parties will take the view that what is sauce for the goose is sauce for the gander and the first laboratory, in an indefensible position, can at best hope to settle out of court for a million or more!

How then have we managed before? Simply because most of those at all levels building golf courses up to the last few years before the advent of American inspired extravaganza, knew good materials from bad, could judge suitability by 'finger and thumb' methods and knew where reliable materials could be found – materials previously analysed on simple chemical and physical standards, which dealt with such uncomplicated but still important values as 'freedom' from clay (fines) or lime (pH) as well as low phosphate levels (high levels are inimical to fine turf). This meant that they knew where the best materials – previously checked and of consistent reli-

able quality – could be found, which avoided costly delays. If they did not have that ability themselves 'they knew a man who did'.

Today we are faced with an increasing number of people at all levels, employers, contractors and even architects, who have no clue as to what is good or bad and who rely on irrelevant standards (more suitable for hot arid or tropical zones than for northern European temperate conditions). As a result they need and demand rigid guide lines. This leads to confusion, extra costs, delays and often disaster. As an example, the specification for the sand to be used on one of those extravaganzas was so precise that the only source was going to cost six or seven times as much as an equally satisfactory, relatively local source, the total cost adding nearly £1 million to the contract. This kind of pedantic insistence on unproven standards leads to all manner of evasions and cost cutting – or, if obeyed, to huge and unnecessary extra costs.

Laboratories will naturally (but unsuccessfully) try to defend their results. They will blame sampling errors, variations in raw material sources, even on one occasion unbelievably blaming illogical variations because of differences in the day of the week that the samples arrived – anything but their analysis methods. Analyses are only as accurate as the sampling, I admit, but such sampling variations are on quite a small scale. When samples tested for hydrological conductivity are reputed to vary between 0.1" hr and 28" per hr on the same green with

the material bulk-mixed centrally on site, clearly it is the analysis technique which is to blame. The one is equivalent to a concrete slab and the other an open drain – ie. indefensible and illogical!

There is no point in drawing up detailed specifications and in laying down performance criteria if these cannot be checked speedily and cheaply by reliable analysis. There have been too many cases of wild and inexplicable variations in the results on the same samples sent to different and sometimes even to the same laboratories, for anyone to be able to have any faith in them. The first step must be to lay down methods which must be followed and then to check on all the laboratories offering soil analysis services. I venture to suggest that it will be a long time before laboratories can be trusted to produce consistently logical, believable and reliable physical soil analysis results (chemical ones are no problem but are of limited use) and if they want to prove me wrong, let them offer to demonstrate and compete with each other for veracity if not cost. Because, believe me, when laboratories demand £150 or thereabouts per sample and we may need scores of samples before the best materials are identified, then we are talking money – and the national golfing body which should be the regulator have not thought, it would seem, about financing their recommendations or actions, e.g. in checking and comparing soil laboratories.

So where is this likely to lead us? Frankly, I can see little real value to any reasonably experienced and educated adviser in using soil analyses except to check on their own judgment. The one question to which I have never been given any (let alone a satisfactory) reply by soil chemists, fertiliser salesmen, or even most advisers is 'at what level do you say that a soil is showing a phosphate deficiency, ie. when does it need phosphatic fertiliser?'

When some of our most superb bent and fescue greens on links or heathland courses show levels of phosphate below 10 ppm (mg/litre) and some of our worst annual meadow grass greens, even on famous links, show 1500 ppm of phosphate, can you make a case for applying any phosphates, ever? Pleas that these pundits should consult the enormous bibliography on this subject, starting with Dr. Murray in 1903 in South Africa (who said the only phosphate to be given to golf greens should be in the form of the normal top dressing, NOT as fertiliser,) are just ignored.

I do not see a lot of point in analysing soils to show they are over-supplied in phosphate particularly, nor can we learn much from pH figures when links greens can show 8.0 and more and heathland turf below 4.0. Attempts to 'manipulate' soil nutritional levels to meet

some artificial, indefensible and unproven standards always end in tears.

The only important nutrient for fine turf is nitrogen, for which there are no sensible tests. There is enough phosphate and almost always enough potash to meet the very modest demands of finer grasses. Trace elements are never needed on golf courses. The ideal pH is the one you've got. Remember the old adage - 'if it ain't broke, don't try to fix it'.

There can thus be little if any justification for spending money on chemical analyses, which all too often are on offer as a sales gimmick or an alternative to sound management advice, which chemists seem to lack. Physical soil analyses are a different matter, but to date the unreliability and inconsistency of results on the same materials from different (and even the same) laboratories makes it all too clear that we have a long way to go before any reliance can be placed on the results.

My advice is to keep your hands in your pockets (analyses are very expensive) and let the grass tell you what it needs. Rubbing a soil sample between finger and thumb is, I regret, a far more accurate way of analysing it than sending it to many testing laboratories.

The secret is to follow austere greenkeeping: minimal fertiliser and nitrogen only; strictly controlled irrigation; intensive deep aeration and the use of compatible top dressings to the existing root zone. Then, as night follows day, you will succeed in proving that you do not have to learn to live with annual meadow grass, though it may take time if you are combatting years of previous mismanagement. Frankly you do not need soil analyses to implement such a programme.

However, as a parting message, let me recount a story with a warning. Some years ago, in the West Country, a new course was being built - and my opinions on raw materials were sought, and in particular the quality of sand. I rejected samples of granite sand whose angular particles locked together to produce the equivalent in terms of porosity and permeability of a motorway, in favour of a sand which had an ideal physical analysis - 80% of particles between 0.5 mm and 0.125 mm. By sheer luck, growth tests were conducted on all raw materials. This ideal sand grew nothing - and further tests showed it to be extremely toxic due to contamination from upstream tin and lead mines. The ideal test might therefore be to see if materials will support the growth of grass - and if they cannot due to toxicity or other reasons there seems little justification for expensive physical soil analyses (nor indeed does it really matter what the toxic elements are - just that they are toxic to grass!

AROUND THE GREEN

Keeping in touch with news and comment from the regions

Will reporters please note that Around The Green copy for April must reach the editor on or before March 1st.

SUSSEX

Without doubt the most enjoyable golf day of the year saw us at our usual stamping ground, Littlehampton GC, for our Christmas Turkey Trot. What is considered our premier meeting was endorsed by the excellent turn-out of nearly sixty greenkeepers and guests - many thanks.

For the second year running play was in the highly enjoyable Texas Scramble format, with teams of four battling over a very well presented course, especially when taking consideration of the 'slightly' wet weather of late. Our heartfelt thanks to Dave Wood and his team for working so hard over the past weeks in 'claiming back' the course - not only from the English Channel but from the River Arun as well!

Play was over 14 holes (14 greens only were open so three were played twice), with the resultant time saved spent at the watering hole (excuse the unintentional pun) at the ninth, partaking of mince pies, scotch and/or beer supplied by the section.

RESULTS: Overall winners - J Hill; C Reed; S Reed & J McEnaney. Second - C Allan; A Gale; A Ford & R Elderfield. Third - G Barr; P Ward; G Meldrum & B Wilmot. Fourth - P Ray; A Murray; J Warner & T Collier. Nearest the pin competitions were won by T Batts; C Allan; R Hughes and B Wilmot, with longest drives won by the 'sluggers', S Shelford and P Ray.

Special thanks must go to Littlehampton GC for their hospitality yet again and to the catering staff for a superb evening meal, also to George Barr as MC (or stand-up comic?) and to all who attended this most enjoyable day.

I'm sure the section would like to wish both Raymond Day and Dennis Ayling all the very best in their new appointments at Sundridge Park and Rowlands Castle respectively, also to Nick Beadle, who is 'in-between' courses at present. Finally, congratulations to Leigh Bennett and his wife on the birth of Rosie.

MARK WILTON



DEVON & CORNWALL

Seventy nine members and trade guests attended our Christmas meeting on Wednesday 9 December, which was again held at Okehampton GC. Despite weeks of rain, Richard Wisdom and his staff had the course in excellent playing order for our Greensome competition for the PJ Flegg Trophy. Our non-golfers had the customary course walk before lunch, this highlighted with an inspection of the two new greens under construction. After an excellent Christmas dinner we were entertained by the superb 'Tank Sherman'. Patrick Flegg of PJ Flegg then presented the golf prizes to M. Shoobridge & P. Bond (Sidmouth) 42pts (1st). A. James & A. Ramsden (Budock Vein) 40pts (2nd). A. Hayes (China Fleet) & R. Hughes (St Mellion) 38pts (3rd).

Our thanks to Patrick for both donating and presenting the golf prizes and to our president Don Hunt for supplying the wine at dinner. Our raffles concluded the day with the first draw, two hampers kindly donated by Avoncrop and Peter Andrewartha, won by two of our Cornish members, J Stevens and J Mitchell. The second raffle was for the prizes kindly donated by members and the trade. The section would like to express its gratitude to Okehampton GC for once again allowing us the use of their facilities.

Our best wishes to Peter Winter, formerly with Fison's, as he embarks on his new career.

Dates for your diary: February meeting on Wed. 24 at Perranporth GC. March meeting on Wed. 24 at Woodbury Park GC. WESTURF Trade Show on Wed. 28 April at Long Ashton GC., Bristol.

RICHARD WHYMAN



SURREY

Effingham GC hosted our final golf event of 1992 on 10 December on a course that was a credit to Peter Broadbent and his staff. Scoring was good with Brian Eastman 'stuffing' the rest and taking the turkey with 41 points. Thanks as ever to the Effingham club for their excellent hospitality and courtesy of the course.

Following prize presentations the AGM was held and in his chairman's report, Terry Huntly announced that 1992 had been a good year for the Surrey section with winter lectures and golf events very well attended. In addition, despite the generous donation of £1000 to the Gold Key Fund, the accounts showed a very healthy balance. The committee members were elected en-bloc for 1993, with no new committee members nominated.

Jim Parker stepped down as president, receiving thanks for his many years of support, and Bert Watson was promoted to president with Alec Bradshaw and Ron Jobson elected vice-presidents. Please note that Mike Yorston is now in charge of handicaps and secretary Derek Walder will be receiving competition entries directly in 1993.

Gareth Roberts of Hankley Common must have been nursing sore feet following his 126 holes of golf played for charity - this over the North Middlesex GC - starting at 7am and finishing at 4.15 pm.

Looking well ahead to 1994, if any member can offer the use of his golf club for section events, please contact Derek Walder.

ROGER TYDEMAN

CLEVELAND

Congratulations to Ian Harrison of Darlington GC on his success in the ICI Premier greenkeeper of the Year award. This bright young head greenkeeper has put together a modern maintenance complex at Darlington with health and safety very much to the fore, along with exemplary record-keeping and a fine pesticide store. Ian's attitude to safe working is a model of efficiency and his staff are very supportive. Darlington GC should be very proud of 'their' man - good luck in the future, Ian.

Our December meeting took the form of a quiz - Cleveland BIGGA v Teeside IoG - sponsored by TurfCare of Co. Durham and chaired most ably by quiz-master Terry Charlton, TurfCare's managing director. The quiz victors were the IoG, though it could be said that the overall winner was the friendly atmosphere that pervaded throughout. Congratulations to David Cook of Eaglescliffe GC on passing his PA2 sprayer test.

BRUCE BURNELL



SOUTH COAST

For the first time ever a section tournament had to be cancelled due to poor weather. After days of heavy rain, including the day itself, the December Turkey Trot was cancelled, with players stranded in the clubhouse. Fortunately the bar remained open and with cable TV and several video games available members still had

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SCOTTISH REGION CONERENCE

on March 9th, 1993 at Oatridge College, Ecclesmachan, Broxburn, 9am to 4pm

Speakers: Alasdair Wellwood, Roy Auld, John Philp, BIGGA's Education Officer David Golding, Eddie Connaughton, Jon Allbutt, Steven Miller from Oatridge College and Jim Grainger. Cost including morning coffee and lunch: £10 BIGGA members, £12.50 non-members. The conference is sponsored by the Scottish Region patrons.

More details from Elliott Small, Tel: 0259 31445