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 greenkeeping.

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.

Tests themselves go in for analysis

'To 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 is 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.

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