Following the Danish Model

The R&A's Golf Course Committee is keen that more golf clubs follow the lead of Denmark in achieving more fescue dominated sustainable golf courses and when Nick Park spoke with Scott MacCallum he explained what they are doing to help the process along.

There is such a thing in life as the "Eureka Moment". The first person to experience it, and utter that immortal cry, was Greek mathematician, Archimedes, for whom a puzzle was solved when he spotted water being displaced from his bath as he climbed in after a long day doing equations.

I'm not saying that Nick Park emulated Archimedes in running naked around the room in excitement, but when he read Chris Haspell's article in the March 2003 issue of Greenkeeper International he may well have cried "Eureka!"

Nick is the Deputy Chairman of the R&A's Golf Course Committee and the man who is chairing the "Maintaining the Sustainable Golf Course" seminar on Thursday and Friday of Harrogate Week. He is also the man who, along with his father Eddie, wrote the first, and possibly only, series of articles on golf course management to feature in a mainstream golf magazine. Those articles appeared in Golf Monthly in the early '80s and attempted to educate the general golfing public in the ways of sustainable golf and the benefits of a fescue-dominated sward.

At their own club, Lindrick, near Sheffield, under the guidance of the club's agronomist, Jim Arthur, and along with their Course Manager, Kevin Hazlehurst, Eddie and Nick reintroduced fescue to the previously Poa-dominated greens, but while the greens improved markedly, patches where the Poa had died off stubbornly refused to fill in with fescue.

Almost 20 years later Nick read Chris Haspell's article, "Fescue, Forgiven and not Forgotten", outlining the work he and his colleagues, who call themselves 'The Sons of Golf', had undertaken on golf courses in Denmark and the success they had enjoyed in introducing fescue to their greens. Eureka!

"After I read the piece I said to Steve Isaac (Assistant Director to the R&A's Golf Course Committee) that we really should get over to Denmark and have a look because even if it was only half true it would be fairly extraordinary," recalled Nick.

I then bumped into Jack McMillan at the launch of the R&A's Best Practice Website and he told me he'd been to Denmark the previous month and that he'd not seen anything like it in 40 years of greenkeeping.

Having a man of Jack's experience say such a thing fuelled Nick's desire to jump on a plane to see it for himself.

"Steve and I at last visited in May 2004 and as soon as we walked on to the first green Chris showed us - at Smorum GC - I asked for a putter. The green was so good I just had to putt on it immediately," recalled Nick.

They visited half a dozen courses, all closely grouped in the Copenhagen area and built on a range of soil conditions. They all had fescue-dominated greens thanks to a combination of a low fertility programme, keeping the surfaces as dry as possible and overseeding.

Nick had found the missing link. The one element which he and his father had not fully considered at Lindrick.

"We knew that we should not be shaving greens and we knew how to produce fescue, just not consistently enough, but we were certainly lacking the overseeding technique," admitted Nick, who added that Jim Arthur had not really then been an advocate of overseeding, feeling instead that bare patches would fill in naturally.

Having found that fescue could flourish in a range of conditions Nick reported back to the Golf Course Committee on his findings and plans to assist golf clubs to go down a more sustainable golf route were put in place, backed enthusiastically by the Chairman, Tim Taylor, who has led the R&A interest in golf courses since 1988.

But why had Denmark succeeded where the rest of the world had failed?

"Chris Haspell and Ian Tomlinson, at Rungsted, and their colleagues are committed, knowledgeable Course Managers who had the bottle to go ahead and do it. Though under the current climate I don't think, unless they were at a proprietary club, they could have necessarily created a similar network in the UK," admitted Nick.

Then again, Rungsted is actually a traditional member-owned club and Ian is proving that where there's a will there's a way. In the UK, members' clubs like Ganton, Royal St Davids and Temple have stuck at it and produced good results. The Old Course has been very good since Walter Woods' tenure - they're now over 60% fescue - and Kingsbarns is even better botanically. And let's not kid ourselves about lack of play: the Old Course takes over 40,000 rounds a year plus lots of extra foot traffic from caddies," he said.

"Leaving aside the technical issues of growing fescue, the Danish-based greenkeepers have been driven by pesticide legislation. If you take away fungicides, as they have done on public land, you can't run Poa. That's one of two major differences to the situation in the UK.

"Another difference is that many Danish courses are pay-and-play, owned by a proprietor, so the greenkeeper doesn't have members to answer to. If the proprietor is convinced that going down the fescue route is the right approach the greenkeeper has a solid mandate - and a realistic timeframe," said Nick, who added that some herbicides might still be used on Danish fairways as many are built on older, fertile agricultural land and they want to be able to kill off the weeds.

One of the main roles of the R&A's Golf Course Committee is a
commitment to enlightening golf clubs to Best Practice, the sustainability of golf and the three strands to it - economic, environmental and playing quality.

"Economically we don't yet have the comparative data on the cost of running a Poa/bent sward, a creeping bent sward or a fescue sward but we are gathering information all the time and working on being able to present a range of costs for running these different swards. Hopefully we will end up with a cost per green and a cost per fairway. The added benefits of courses being able to stay open longer in the year can also be built into the final figures.

"I think that's a year or two away but we will put the comparative figures on our website so that clubs can make up their own minds."

The environmental argument is easier to sell.

"Less water, less nitrogen, less pesticide and in some cases zero pesticide and, yes, that does mean zero fungicide! That's all good news and helps golf with its image outside of the game itself," said Nick.

The playing quality criteria is possibly the most difficult in which to bring some objectivity but the R&A is working to remedy that.

"It's all very well saying 'firm, fast and true' but the only objective tool we currently have is the dreaded stimpmeter and it is more misused with every month that goes by. Ok it does measure speed but it must be used in conjunction with other measures. Over the last year, however, the R&A Equipment Standards Committee and its resident physicist, Steve Otto, and Steve Isaac, in conjunction with the USGA have done a lot of work in developing a firmness meter."

This was tested at this year's Open Championship and if used in conjunction with a moisture meter will provide another objective measure of how greens are improving.

The third tool on which the boffins are working is a trueness meter.

"We want to be able to give the greenkeeper a suite of tools which if used regularly will give him objective measurements that his greens are improving and thus a defence to golfers who think the opposite," explained Nick, adding that the STRI is also working on DNA analysis of grass clippings which will give clubs a print out telling exactly the composition of the greens - e.g. 70% fescue/30% Poa, etc.

Nick believes that many of the problems can be traced back to the early '60s with Arnold Palmer's arrival in Britain to play in The Open, coupled with the advent of colour television and the televising of the Masters for the first time.

"Palmer's appearance was a wonderful boost - golf really took off, memberships doubled and money poured into the clubs. What did they spend it on? Making their courses look like Augusta by throwing on water and nitrogen."

But he feels there is currently a more serious threat to golf courses than over-fertilising and over-watering.

"Anyone who thinks that greens which are cut to 12 on the stimpmeter are not going to die the next week is out of order. I think the cult of low cutting could be more serious than any of the other crimes that have been perpetrated in the past because chemicals are the only things keeping those greens alive. That and the fact that weather conditions have been in our favour for the last few years. When we have a bad winter the devastation will be huge."

But he doesn't believe change will be as painful, and as dangerous to the country's greenkeepers in employment terms, as it once might have been.

"What used to be known as 'Arthuritis' - the painful five year change over process - isn't as much a factor nowadays as reconstruction and reestablishment techniques are getting so much better. Hans Beurling, a Swedish greenkeeper working in Denmark, has pioneered a process of stripping off thatch and Poa and going straight in and sowing fescue. Greens
Following the Danish Model

have been brought back into play in about nine months. He has 27 holes so was able to do this on one nine and it is not something which could be done on every site - but it shows what is possible."

Although desperate to see change Nick does advocate caution however.

"We don't want anyone jumping off a cliff, as I call it, and going down the fescue route until or unless they have got all their ducks in a row. By that I mean have the objective, measurable arguments in place - and the backing of their club."

The pace of any change will, he believes, be driven by external influences by which he means EU legislation.

"If we get a fungicide ban as they did in Holland and have in Denmark and Sweden you've got to change. By the same token, when the UK is hit by the Water Framework Directive, water supplies will be increasingly and rigorously controlled - you've then got to change if you can no longer run a Poa sward. The sensible clubs will be the ones who say that they don't want to wait until they are overtaken by external events but who start taking steps earlier."

Nick has high hopes for the Harrogate Week seminar and is looking for a constructive debate on the fescue programme and is keen to see who will be in attendance.

"There is a certain amount of information to share with the delegates and we also want to discuss what's been happening, how it's happening and the impact it might have on the future in the UK and elsewhere," said Nick.

"British greenkeepers are very interested and very committed and we owe them a better way forward. The R&A Golf Course Committee intends to play its part in that."

Sustaining the Future

Steve Isaac discusses the first steps of working towards the sustainable golf course.

Now, and in years to come, golf course management for the majority will necessitate the use of less water, less fertiliser and less pesticide. It will also have to see golfers being offered more for their money as the competition to attract green fees and members becomes increasingly severe.

For northern Europe, there are feasible options that can meet all of the demands the future holds in store. These already exist and are being put into practice by enlightened course managers, who realise the days of big budgets and the consumables safety net have gone.

The work of greenkeepers in Denmark has been very much in the news over the last 18 months and they look to be leading the way when it comes to sustainable course management, defined by The R&A Golf Course Committee as: "Optimising the playing quality of the golf course in harmony with the conservation of its natural environment under economically sound and socially responsible management."

We believe there are plenty of UK greenkeepers who follow the same principles based on minimising inputs and creating an environment to favour less demanding grasses.

The R&A, in partnership with BIGGA, are hosting a conference at Harrogate Week 2006 on the sustainable golf course. The concept and how it can be implemented will be the focus, but the problems faced by Course Managers who want to do the right thing but are pressurised by the demands of golfers and the golf business cannot be ignored. We may be able to satisfy their demands for colour at the moment but this is not sustainable through intensive programmes based on fertiliser, water and fungicide.

There is a need to promote sustainability to those sectors of the golf industry that currently have significant control over greenkeeping practices, yet little understanding of the consequences of the policies they force on greenkeepers. No greenkeeper should be expected to put his reputation, and often his job, on the line unless his club is fully supportive of the course management policies being implemented.

The R&A are developing tools, data sets and case histories to reinforce our stance in respect of inputs, finances and playing quality and these will be presented during the conference.

Hopefully, the conference will attract a large audience of greenkeepers and club officials who want to implement sustainable policies or who wish to develop their current programme based on this theme. It is possible to reduce inputs while retaining playing quality. Discuss how this can be achieved with course managers who have actually done it!

The shortage of water in southern England and much of southern Europe this year may be a climatic blip rather than a trend. The process of active ingredient removal as a result of EU review of pesticides, which has already claimed 50% of available chemicals since 1991, may not impact on your ability to control disease. The requirement for improved water quality by 2015 under the EU Water Framework Directive may not affect your use of potential water pollutants such as fertiliser and pesticide. Or you could live in the real world.

Take the initiative, join those who are dealing with these issues now. Sign up for the conference, take part in the debate and together we can influence the future direction of course management.


Steve Isaac is Assistant Director - Golf Course Management, The R&A.