

MAIN: The view of the 18th towards the clubhouse
INSET: How parts of the course looked a year ago





for the first few weeks, and you feel a bit undermined. I asked them to trust me and give me time, and the team and myself would prove that we knew what we were doing.

"We've made gradual improvements but honestly, we haven't achieved anything like our potential yet. We have to keep moving forward because when I've visited other courses, it's clear to me that standards are improving everywhere as the market is currently so competitive. I like playing golf at other courses and think it's very important not to cocoon yourself in your own course, you need to keep up to date with what other greenkeepers are doing and compare your methods to theirs.

"Everyone here is now on our side, they can see what the greenkeeping team are doing and have faith in us all, they know we're an enthusiastic team.

"We're young and we want to prove a point. The members are complimenting the lads now, whereas before if they did speak to them it was generally a complaint. The feelgood factor is returning."

Miles admitted he left school with no real idea of his career path although he favoured the outdoor life. He played golf at Bryn Morfydd Golf Club (which has since closed)

and this led to a seasonal greenkeeping position. He then moved to Rhuddlan Golf Club while studying a National Diploma in Horticulture at Northop College.

After four months at Rhuddlan – a heavy parkland course – he was offered a full-time role, and switched his studies to an NVQ Level 2 in Sportsturf.

Miles recalled: "I worked my way up to Deputy at Rhuddlan. I learnt so much and had a good relationship with Course Manager John Morris, but there's only so much you can achieve as Deputy, I needed to progress and this place was nearby so it was ideal.

"I had the standard worries about moving up to Course Manager. You know if you don't succeed or something goes wrong, it's your head on the block. But to improve yourself you have to step out of your comfort zone.

"You have to lead by example, I go out and demonstrate what I want the team to do so there are no misunderstandings, and I don't ask anybody to do something I wouldn't be prepared to do myself."

Miles was nominated for Toro Student of the Year 2011 by Jenny Pitt, his tutor at Deeside College, and finished as a runner-up overall.



He credits this experience as a turning point in his career.

"I used to struggle with my confidence a bit, particularly when talking to older, more experienced greenkeepers.

"But it reassured me that my career was heading in the right direction and it gave me belief that I was doing the right things."

Miles is a talented footballer, and next season will be playing in the second tier of the Welsh football pyramid after helping Denbigh Town FC to promotion. After my illuminating visit to North Wales, I'm convinced that he's well on the way to restoring Llandudno Maesdu to the big league.

Follow the work of Miles and his team on Twitter @MaesduGolfClub.



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A holistic approach to irrigation

In the first part of a two-part article, Adrian Mortram from Robin Hume Associates argues the case for a holistic approach to turfgrass irrigation with a nod to greenkeeping methods from the past

BTME is arguably the best turf management event existing anywhere in the world. It is a time to seek out the new, look back to the past, meet old friends and start new friendships. In modern parlance it is the perfect place for networking.

Sitting at the dining table with my father and a group of dear friends, there was also a young man who had won a scholarship from BIGGA to attend BTME by writing an essay on why he wanted to be at the show.

The conversation was eclectic, fast and furious, but almost all was about grass, and not the alternate meaning. Irrigation and the effective and efficient usage of water is a huge subject. Your irrigation system is probably the biggest single investment your golf club will

ever make and it must be used to its very best.

This two part article will look at what we, as greenkeepers and course managers, did in the past and how we can use these traditional skills and add new techniques so we are capable of advancing in the future to make the best use of our most precious resource - water.

Every drop of water counts, even after the most severe winter in decades for both rainfall and flooding.

Subterranean aquifers should now be replenished but hydrologically it would appear there is a finite amount of water which can fall as precipitation, does this winter deluge mean drought in the near future? If so, should we not in the long term be harnessing this

precipitation when it is available? Should we not be considering water farming in some degree whether it is by trapping excess drainage or harvesting run-off from hard standing areas, car parks and roofs?

Average rainfall figures quoted in the media can be misleading and cloud our judgement. Even though in some areas rainfall has been average for the time of year, in others for instance the north east of Scotland, it has been below average.

Yes, the pattern of rainfall seems to be changing with heavier falls of rain in greater deluges in shorter periods of time. Irrigation data was originally based on agricultural crops when a drought was assessed when the soil moisture deficit reached 30mm, equivalent to a ten day period without rainfall.



Greenkeepers of the past would look for signs of imminent drought by observing footprinting, the delicate depressions in the turf caused by the stress of foot traffic, often observed as the sun began to dip in the sky, or the subtle changes in colour of the bent rich sward indicating water stress or wilting.

Older tools for changing the hole cup exposed the root core for inspection giving hidden clues as to the depth of rooting and the water availability in the rootzone; daily switching of the early morning dew could provide up to 1mm of free water, almost one third of the daily requirement.

Aeration - both surface and sub-surface - plays a huge part in the effective management and use of water resources. Surface aeration whether verticutting or scarifying

helps remove excess water absorbing organic matter in the surface of the sward and sub-surface aeration, by whatever method, allows oxygen and water to penetrate into the rootzone increasing the root biomass of the turf.

This encourages a deeper rooting sward and a greater soil reservoir capacity. These are all tried and well-tested methods to improve the efficiency of water management in the rootzone.

More recently there has been considerable improvement in the use and efficiency of wetting agents and their use extended not only as a benefit for hydrophobic turf but to encompass and encourage the uptake of moisture from dewy turf. Research and breeding of drought resistance in turf cultivars has gained prominence, as has the

selection of cultivars with better natural colour.

Over feeding and excessive water regimes can lead to a more dominant vivid green colour, but what is colour? Is the colour of the sward to be dominated by the shades of colour on our television screens, or are the natural muted colours of our finer grasses in the UK to be the norm?

Do I see the same shade of green as the next man when it is still early spring in the UK with little or no growth? Turf managers are not looking for a yield from their turf, only sustainable balanced growth, so water and nutrients should be kept to as low a level as possible.

A knowledge of soil structure and the movement of soil water also has a considerable impact on the efficient use of water. During

this winter most soils/rootzones will have been waterlogged, when all the available air within the soil/rootzone, the pore spaces, is saturated with water.

As water drains away under the influence of gravity, the soil/rootzone reaches field capacity, when the pore spaces are fully charged with air and the capillary pathways fully charged with water.

This may be considered the initial point from which irrigation is calculated, though irrigation should not be calculated to bring the soil/rootzone back to field capacity.

If this was the case, any natural precipitation would ensure the soil/rootzone would become waterlogged and the free natural precipitation would be lost through drainage, and wasted.

Irrigation must take into account a calculation for the available water and allowable depletion. Available water is a factor of the depth of root development and the available water capacity.

The available water capacity is the difference in the amount of water in the soil/rootzone at field capacity and the amount contained at permanent wilting point. A knowledge of infiltration rate is also

beneficial as this is a measure of the rate at which a soil/rootzone absorbs water, if the application rate from an irrigation sprinkler system is greater than the infiltration rate of the soil/rootzone, then run-off will occur. Infiltration rate is relatively easy to measure, by using a double ring infiltrometer, and the rate of infiltration can be affected by such variables as compaction and slope (contour).

Let us also look at the factors which cause grasses to lose water, the factors which affect evapotranspiration. They are solar radiation (the amount of light or sunshine), temperature, wind and humidity. Most of these are difficult if not impossible to control, at least economically. However they can be assessed and these assessments can be used to calculate different rates of irrigation for differing situations.

Simply put, a plateau green in an exposed position on a links course will dry out quicker than a sheltered green situated within the dunes. But even this scenario is not simple, as the former will be cooler than the latter when temperature rather than wind may be in control. A modern weather station may

assist, but will not give the complete answer. Soil moisture sensing equipment will help to assess sensitive areas.

Referring back to this article's introduction, I mentioned that we were sat around the dinner table when much of this conversation took place.

There present sat an old friend with considerable experience of installing and maintaining irrigation control systems, his comment was on many return visits to golf clubs the controllers have remained unaltered from their original setting.

We have the technology, so why is it not being used? Is education lacking? Well for the past several years BTME has put on workshops looking at the management of water on the golf course and this year there was a workshop looking at grasses, soil and fertilisers.

In the second article, I hope to explore some of the issues raised and discuss the use of modern technology in an attempt to solve some of the problems. Many of the answers are in the use of new technology, but not all, and an all-round approach as always should be considered the best.

about the author



About the author

Adrian Mortram is Managing Director of Robin Hume Associates (RHA) who are golf course and sportsturf irrigation consultants based in the UK. Adrian has undertaken numerous education sessions for BIGGA both at regional and national level and his company RHA offer a range of services from irrigation audits through to detailed irrigation design, plans and specifications. For more information please visit: www.irrigationconsultants.co.uk, or email adrian.mortram@irrigationconsultants.co.uk





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Win an iPad

How you can
win an iPad in
our revamped
Photography
Competition

In the picture

BIGGA members can win an iPad in this year's Photographic Competition – and for the first time you can submit smartphone images.

Many BIGGA members take stunning course photos on their mobiles – and these entries are now encouraged as we move to producing a desktop calendar for the first time.

We'll also be giving members the chance to pick the winners. A panel at BIGGA House will whittle the entries down to the best 24, then you will be able to pick your favourite through a survey on our website.

The 12 leading entries will be included in the calendar and the winning image will win an iPad, plus a large framed version of their image.

We continue to welcome photos taken on digital cameras. The images will be displayed at a 16:9 ratio. If you are taking your shot on a mobile phone, please ensure it's taken on the highest resolution setting.

To enter, please send your images to comps@bigga.co.uk with 'BIGGA Photo Comp 2014' in the subject field. Please include your name, the club you work at and your membership number.

Also, please state which course your photo was taken at to allow your picture to be considered. Entries are limited at five per person.

The closing date for entries is Friday 18 July 2014.

BIGGA GOLF PHOTOGRAPHIC COMPETITION 2014 TERMS AND CONDITIONS

1 Open to BIGGA members only.

2 Photos of the course members work at, or a course they have visited, will be considered. Entries will only be considered if the entrant states what course the photograph shows.

4 Each entrant is limited to a maximum of 5 entries ie 5 different photographs

5 All photography entered may be used in a variety of publications.

6 Images to be high resolution and at 16:9 landscape (actual print size 172mm wide x 100mm high at 300dpi). Only images taken with a three megapixel camera or higher will be considered.

7 Entries are via email to comps@bigga.co.uk with transfer methods advised for large files. "BIGGA PHOTO COMP 2014" to be listed in the subject header.

8 The best 24 images will be provided for members to give their views on via an online survey. The survey will be linked to through the BIGGA website and will be open to votes within the Members' Area only. The leading 12 will feature in the 2015 BIGGA calendar.

9 The winning entry will receive an iPad and a framed copy of their shot.

10 BIGGA reserves the right to reject any entry if it is considered inappropriate.

11 The closing date for the competition is Friday 18 July 2014.

Beesy does it

Bob Taylor, Head of Ecology and Environment at STRI, updates us on Operation Pollinator and visits two courses where BIGGA members are making a real difference

Operation Pollinator is designed to reverse the plight of bumblebees and pollinating insects in the UK and Ireland by creating valuable new habitats in out of play areas of golf courses.

Its aim is to establish pollen and nectar rich habitats on up to 500 golf courses to provide the essential food sources and nesting sites for pollinating insects - including bumblebees and other important wild bees.

Operation Pollinator provides a framework of knowledge, expertise and experience to assist with the successful management of wildflower habitats in out-of-play rough, alongside the conventional management of the golf course.

The inaugural Operation Pollinator Award, run by The Sports Turf Research Institute (STRI) and Syngenta, was held during BTME. After long deliberations North Foreland Golf Club in Kent were awarded the top prize.

The Award aims to highlight the plight of our native pollinators which are undergoing massive declines due to loss of the countryside and changing weather patterns. Moreover, just like the Environment Awards, it is hoped the award will be used as an industry platform allowing us to demonstrate that far from being a selfish use of the landscape, golf is a positive contributor to biodiversity and the conservation of both species and habitats, some of which owe their very existence to the presence of the golf course.

Operation Pollinator will give recognition to golf clubs that are committed to the conservation management, and which have successfully created pollen rich habitats on golf courses leading to an increase in pollinating insects.

So what is North Foreland doing that is so special?

The sites chosen at the club, a 36-hole facility on the Kent coast, had been unmanaged for over 30 years allowing deep ground ivy to take over and compromise the former chalk grassland. Site selection was due to it being largely out of play with limited foot traffic.

The results of the grassland management improvement work have seen a major transformation with the rough now alive with flying insects, moths, butterflies and grasshoppers. Bee activity within bee hotels has resulted in a gradual species increase and much enhanced environmental and ecological value. From the work taking place at North Foreland, it is clear that this is a long term project with lots of future potential.

Course Manager Dan McGrath MG fully understands and appreciates what works best in the course environment. The seed selected by him indicates that he has an implicit understanding of what grows well on the course and how it blends in with the rest of the course to provide an enjoyable, colourful and inspiring environment for members and visitors alike.

There are an increasing number of golf clubs working to develop pollinator habitat, building upon their experience and gaining direct and indirect benefit from the conservation management opportunities. Some clubs are also realising business opportunities from the initiative.

The finalists for the award included:

- Carnoustie Golf Links Management Trust
- St Andrews Links
- John O'Gaunt Golf Club
- Dundonald Links
- Hankley Common Golf Club

