

## GOLF COURSE MANAGEMENT: WORK DIARY - AUGUST 2013

### Overview

Summer finally arrived last month whereby the UK enjoyed the first prolonged spell of hot, dry and sunny weather since 2006. This was in direct contrast to the previous run of colder than average months and also last years' July which for many was a wash-out. This was welcome news for golf clubs with roundage on the ascendancy. However, it was a tough month for the grass and for those responsible for providing good playing surfaces. With temperatures in excess of 27° Celsius (81° F) for 7 consecutive days or more; preventing drought stress and dry patch was the main challenge for almost every



**Droughted conditions but still good turf quality. Green and surrounds irrigated**

course manager in the UK. It was a time when irrigation systems were fully tested, since daily ET rates ranged from 2.5 to 4.0mm. For many younger course managers, this was also their first taste of dealing with this type of condition. What to do, what to apply and when were some of the key considerations. When faced with very wet or hot and dry conditions, any weaknesses are soon highlighted such as poor irrigation coverage and thatch accumulation: the latter leading to almost inevitable dry patch or drought stress. Fuel usage and mowing requirements were low, while water requirement was high. The key aspect was to balance plant stress against customer expectations and for many that meant 'holding back' with aggressive surface management. Fortunately, cooler and moister conditions prevailed during the last week of the month, thus giving some reprieve and an opportunity for the grass to recover. The start of August appears to be more of the same with warm temperatures interspersed with showers. This is generally a quieter month in the UK since competition and society play tends to be reduced. However, there are always exceptions such as those courses situated in the holiday areas of Devon and Cornwall and other coastal regions of the UK when visitor fees are a much needed revenue stream. Towards the end of the month there is a noticeable change in reduced daylight hours and the start of damper mornings. The general trend for August during the last 10 to 15 years has been warmer and drier, but for the last three years this trend has been in reverse, with both 2010 and 2012 being cool and very wet. Soil moisture levels will still be relatively low at the start of the month, therefore the risk of turf stress from a return of warm temperatures and low rainfall will continue to be the main threat. Therefore the focus needs to remain on reducing the risk of any late summer disease, particularly Anthracnose and the 'knock-on effects from fairy rings and dry patch. Once again it is a question of balance between plant health and golfer's expectations with regard to green speed and smoothness.

### Greens

Golf green maintenance requirements in August will be very similar to that usually seen in July since much the same conditions apply; ie warm summer temperatures, long hours of daylight and possibly reduced rainfall. Added to the fact that staffing levels may be lower due to holidays, there may be a need to focus on priorities. This essentially means retaining sufficient moisture levels in the soil/root-zone and limiting the risk of turf stress. When faced with these conditions, the key aspects are to reduce the frequency of any grooming or verti-cutting and replacing this with brushing. Grooved front rollers will add to turf stress so switch to smooth rollers if possible. Monitor mowing heights on a daily basis and raise by 0.5mm if the turf shows signs of weakness. Consider rolling as opposed to mowing but limit this to twice per week, perhaps three times on sand based greens. Ensure that sufficient water is applied but only for the benefit of the turf. Ideally this should be via hand watering but staffing levels may not be sufficient for this to be practical for any length of time. Sarel rolling, micro, star or needle tining should be at the forefront of any work practices, thus ensuring that both wetting agent and water is able to move through the surface quickly and target the areas as required. Where dry patch or drought stress is confined to ridges or high 'shoulders' then consider applying a granular wetting agent following mini-coring to these areas. This must be thoroughly watered in for it to be effective in breaking down the waxy organic layer that surrounds the sand or soil particles. Nutrient requirement will largely depend on the needs of the turf. In hot and dry conditions, the plant partially shuts down and therefore has

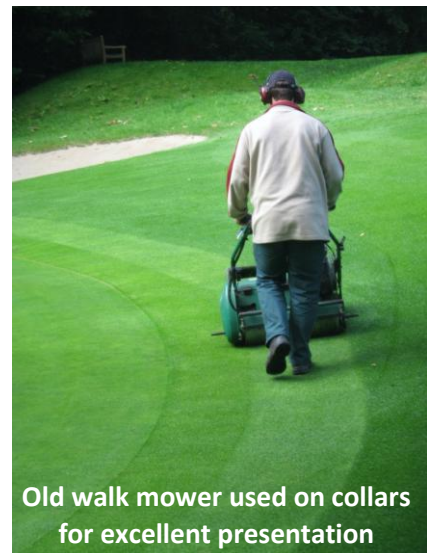
less need for nutrient. However, to help the turf through such periods then it is important to apply a mix of bio-stimulants and seaweed extracts, along with a very small amount of Nitrogen and potash to give the plant sufficient nutrient to restart the photosynthesis process, albeit gradually. Applying a plant growth regulator (PGR) such as Primo Maxx will help divert the plant's energy towards the roots thus reducing the amount of water that is required as well as improving turf density. All of the above is of course good practice or sound Greenkeeping. However, many clubs are opting to hollow core greens in August as opposed to April or October with the objective of removing thatch. The advantages are that soil conditions are much drier, hours of daylight are longer and recovery time is considerably less. This work however should be avoided if soil temperatures are high since the turf is put under additional stress and prone to injury. In advance of such treatment, the greens should be lightly fertilised to aid recovery and the root-zone sufficiently watered. Follow-up top dressing must fill the holes completely and may require a second but lighter application soon after. A standard coring pattern at 50mm centres and 75mm depth, using 13mm tine width, will require nearly 3 tons of dressing per averaged sized green to completely fill the holes, therefore more dressing is required than many turf managers believe. Applying an organic soil conditioner containing humic acid will aid recovery and this should be applied immediately after coring. Disease risks are also similar to those in July, namely Red Thread, Take all Patch and Anthracnose although in some instances Dollar Spot can also be witnessed. See comments under the heading 'Watchlist'.

### **Tees**

Mowing requirements are unlikely to be more than twice per week unless conditions are moist and growth remains strong. HOC will also remain at around 12mm for most courses but should be raised for non-irrigated tees if suffering from drought stress. Playing levels are likely to remain high, therefore daily movement of tee markers and regular divoting will be the norm to maintain good surface quality and presentation. Any additional watering should be sufficient to aid recovery and maintain turf vigour, but largely aimed at developing a good root structure. Solid tining with no more than 13mm wide tines may be an option to help with moving water quickly from the surface. Keeping surfaces clean and free of divots and broken tees must be a daily task as well as the need to clean and maintain all course accessories. A mid-season feed is likely to have been applied previously but if not then the same scenario applies re a low N & K feed mixed with a PGR. Shaded tees where turf density is weaker will benefit from using this, mixed with a small amount of foliar Nitrogen. Where tees are prone to drought stress then a wetting agent should be applied but the surfaces will need to be watered and lightly tined in advance.

### **Surrounds**

The collars need to be monitored for drought stress, similar to greens but in addition, also for wear since it is on these areas that triplex mowers will be constantly turning. This problem can be exacerbated where hazards are close to the greens surface. Other than a higher mowing height of around 12mm and usually with a tee triple, the maintenance of the collars should loosely follow that of the greens. A few courses are reverting back to making two 'runs' with a walk mower for improved presentation at around 10mm and this form of mowing eliminates any tyre tracking. High wear areas may need to be tined and dressed and mowing patterns altered to alleviate further damage. Little work other than mowing at around 35mm will be required on the Surrounds. If water can be applied to key walk-off areas then this will help, but not at the expense of the greens and collars. A balance of priorities needs to be found. Key wear areas should be protected by implementing traffic control measures where necessary.



**Old walk mower used on collars  
for excellent presentation**

### **Fairways**

As growth starts to pick up again following the return of some welcome rain, presentation and definition between fairway and light rough should improve. Stalk removal with a rotary mower may continue to be an issue but this is easily resolved. Mowing is still likely to be less frequent than in June and early July but the HOC will remain the same, with most courses cutting at between 14mm and 17mm; although links and heathland courses are likely to be lower where fescue is the dominant grass. If improved colour and presentation is required but without 'real' growth, then a foliar application of urea and/or soluble Iron, usually about 1 x 25kg bag per fairway in 600 lts water will give a slight 'green-up' effect. It is a fairly low cost practice although it only lasts for a few weeks. At this time of year, divot damage may be slow to recover therefore divoting of the

worst affected areas may be required. Any clover remaining on the fairways should be spot treated as per other weeds that may still be present, but only when there is sufficient moisture within the soil. Fortunately there is a good choice of selective herbicides available at relatively low cost.

### **Roughs**

The mowing frequency of many areas of rough will usually be less in August, especially if dry conditions continue. As mentioned in previous articles, the main areas of rough are likely to be rotary cut at 50mm, while any areas of intermediate rough will still be cut weekly at a lower HOC, but this is limited to just one or two 'bands' wide. Cutting areas of deeper rough should continue, with the aim of collecting the grass and lowering the nutrient levels to encourage the finer and slower growing grasses to thrive. Late summer is also a good time to spray for dock, thistle and other unwanted weed in these out of play areas. If any clover is still prevalent in areas of rough, August is the last month where effective control can be gained. Alkaline and nutrient hungry soils, especially on new courses are particularly prone to clover invasion.

### **Bunkers**

Maintenance during August is largely a continuation of that before with raking being carried out most days, either by hand or via machine. With growth hopefully slowing down, any edging and trimming will be slight, but the focus needs to remain on stone and weed removal. Regular checks should be made regarding sand depth and distribution. If weed problems persist on sand faces, then these can be spot sprayed with glyphosate but care needs to be taken to avoid any drift onto the surrounding banks. With heavy downpours of rain often being recorded in August, there may be the need for sand to be pushed back up the face if wash-outs occur.



**LEFT:** Close mowed surrounds and excellent bunker presentation on this links course

**RIGHT:** Cutting and removing grass from the deep rough as part of grassland management

### **Other**

**Lakes/Ponds/Ditches:** Apart from routine mowing and strimming, the main task is likely to be weed or algae control. The latter can be troublesome at this time of year if there is a lack of air movement and the depth is relatively shallow leading to a rise in water temperature. Algae in lakes or ponds can be treated with elongated bales of barley straw, but chemicals can no longer be applied. The only other forms of controlling algae build-up are by using either freeze dried bacterial products or via the use of dye colourants. Best results are to use the latter early in the season, followed by the bacteria products once water temperatures have risen above 10° Celsius. All control methods have their pros and cons therefore it is best to seek professional advice as to which method will work best in a given situation. Weeds or bulrushes are often best cleared using a mini-excavator but if the water feature is lined then this will need to be tackled manually which is labour intensive. On larger ponds or lakes, an amphibious craft can be used for weed removal but this is a specialised operation and good advice is strongly recommended.

**Paths:** The main requirement will be for the on-going control of weeds via an application of glyphosate. This should also be directed to areas of steps and around ball washers, bins, signage etc. Top up pot-holes as required with the appropriate path dressing and consolidate afterwards using a 'whacker' plate or heavy roller.

### **Watchlist:**

**Disease:** During August, the main disease threat is likely to come from Red Thread, Take-All Patch and Anthracnose Foliar Blight (AFB) plus the possibility of Dollar Spot. Details for prevention and treatment of the former three diseases were listed in the previous two monthly articles. AFB is the more common and more damaging disease on Poa greens mainly and is a clear sign of the



plant being under stress therefore work practices need to change and the growing environment improved. For more information on how to deal with this disease, then refer to the July diary under 'Greens'. The least common disease that can affect turf in August is Dollar Spot and it is Fescue that is more at risk from attack. However all species can be affected including annual meadow grass. The main causes for Dollar Spot to occur are during periods of short bursts of rainfall with accompanying high temperatures and high levels of humidity which can be typical in August. Prolonged leaf wetness eg dew, low fertility and poor growth are the other factors that favour this disease along with the more common conditions of thatch and compaction. Therefore the main cultural practices are to reverse the above where possible to limit the risk. Should chemical control be necessary, then apply products such as Headway, Banner Maxx or Instrata at the recommended rate.



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**Pests:** Fortunately the risk from any pests during August is fairly low although Crane Fly (Daddy Long Legs) can be in abundance at this time of year as they lay their eggs before their life cycle comes to an end. Each adult can lay up to 300 eggs at the end of summer which take about 2 weeks to hatch. Initial damage usually becomes noticeable in November but best to be aware of initial activity as a sign of action to be taken in 3 months time.

**Turf Disorders:** Drought stress and dry patch are likely to be the main concerns if high soil temperatures exist which can cause stress to the turf. Where Fairy Rings have been present, this can also be a sign that problems with dry patch and possibly Anthracnose Foliar Blight could be on the horizon since all are 'inter-related'. Applying wetting agent must be in conjunction with other practices such as micro-tining, raising the HOC and thoroughly watering the affected areas on a regular basis. Refer to comments listed under 'Greens' although problems in this area can be very much 'site specific'.

**Weed control:** This is the last month where effective control of weeds such as clover can be achieved, although by this time of year, such control should be limited to areas of rough, especially if ground conditions remain dry.

**Equipment:** Servicing and checking of equipment to continue, with the emphasis still being placed on hydraulic pipes, valves, safety switches and cutting units. When dry, use a blower for clipping removal in the rough prior to visiting the 'wash bay'.



**Irrigation:** With the system likely to be in constant use if dry weather conditions prevail, regular checks on performance and even coverage are essential. Therefore all sprinkler heads and valves need to be checked on a regular basis and any dry or 'missed' areas acted upon immediately to prevent drought stress and eventual dry patch from forming. The system should also be checked both automatically and manually on a regular basis to ensure maximum performance and coverage.

**Compound:** If the need for mowing during August is reduced, then take any opportunity to tidy up external areas of the compound and to check on supplies of sands and gravels which will be required over the coming months.