

Course Report – May

Course Update

We are truly into the thick of the competition season with Club Championship Qualifiers taking place over the West Links over the last few weeks. The calendar tells us that we are nearing the end of Spring and nearly into summer, however the weather data tells us that we are still waiting on the warm weather to finally arrive. Last month, I spoke about Growing Degree Days (GDD) and as part of this month's report the "Hot Topic" will be about Growth Potential (GP). These two models help to indicate when the grass is growing and helps to identify windows for fertiliser, seed germination or growth regulator applications. Unfortunately, these models are showing that at the minute, the GDD and GP are a week behind where we were this time last year, but thankfully well ahead of this point in 2021 which was showed to be a very cold start to the year.

There have been a few comments made about the greens and the poor ball roll/bobbles. The question was asked whether the work that had been carried out in September 2022 and March 2023 during the maintenance weeks were causing the poor ball roll. If I'm honest, the work that was carried out was completely necessary and although there is a short-term pain in terms of condition and playability, it is all done with the long-term gain in mind. I have said before that any work we do is with the golfer in mind, and we are on a journey to creating better surfaces which will not happen overnight.

I would also add that we are at the mercy of Mother Nature. The period after the September maintenance week was not conducive to good recovery/seed germination and the cold start to 2023 has hindered recovery as well, but the different growing patterns of the different grass types in the greens is also playing a factor. The Ryegrasses which grow laterally along the surface have a stalky crowns and thick shoots/stems. The Poa Annua seedheads started to produce during the middle of April, with the more desirable grasses (fescues and bents) still not really growing yet. We have tried to mitigate this by brushing/verti-cutting/grooming and monthly applications of fertiliser, but until the weather starts to cooperate with temperatures that are conducive to good growing conditions, we just have to be patient.



Figure 1 - The Prism Gauge used to show heights of cut showing the different heights the different grass species are currently. Brushing and Grooming will help to reduce this.

Staff Training

We delighted to send a few of the team members away for training and development classes this past month. Senior Greenkeeper, Daniel Taylor, spent a day at SRUC Elmwood College, undertaking training towards a Pesticide Application qualification (PA2 - Boom Spraying). Daniel will undertake a test to become a qualified at a later date.

A week later, Daniel and Luis Oliveira, went down to Leeds to workshop hosted by Bernhards at Moortown Golf Club. Bernhards supply grinding equipment to sharpen and maintain reels and blades on cutting equipment - we have 2 Bernhards grinders in our Maintenance Facility. Craig Haldane, who was the Course Manager at Gleneagles for the Solheim Cup, recently took up the position of Director of Education at Bernhards and has started putting together workshop designed to educate greenkeepers or mechanics on best practices for maintaining cutting equipment and how to use grinders. Richard Connell, who is our full-time mechanic, has great experience using these grinders so it has been great to get other team members involved and using our specialist equipment.



Figure 2 - Daniel (left) and Luis (right) using Bernhards Grinders at Moortown Golf Club.

Fairways Conditioning

Since October, we have been applying fertiliser and wetting agents to the fairways to try and improve the surface, but also the profile below. In the last few years, there has been a push to apply wetting agents through the autumn/winter months with the aim of harnessing any rainwater which is more likely to fall during the months, giving the fairways more of a head start going into the spring. We are fortunate that we can apply supplemental irrigation to the fairways, but it is important that we create a surface that does not require constant irrigation during times of heat stress/drought.

We have been applying Nitrogen to boost growth, Iron to harden to the plant and present a nice dark green colour through increased chlorophyll production, seaweed which acts as a bio stimulant and a penetrative wetting agent called Dispatch. Dispatch pulls any moisture down into the rootzone and can be applied at low volumes (2 litres per hectare in 300 litres of water per hectare)

which unlike our greens wetting agent which requires a larger water rate (600-800 litres per hectare). It does not need to be watered in after application which a lot of other wetting agents require which makes it an easy and cost-effective product to apply. Below are two photos from the 8th fairway – the first photo is from September 2022 and the second photo is from May 2023. Hopefully you can see by the difference in colour how much moisture is now in the profile of the fairways which is helping to increase root length and density.



Figure 3 - Soil Samples from the 8th fairway (Left: Sept 2022, right: April 2023).

Soil samples from the 8th fairway. The left photo was taken in September 2022 before we started the Wetting Agent programme. The photo on the right was taken in April. The screwdriver on the left photo shows the Organic Matter layer and about 1.5 inches below that shows the depth at which the roots were growing. Below that is the pure sand rootzone which looks very dry. The photo on the right shows that the roots have grown by 1-2 inches and the pure sand rootzone has been "wetter" allowing the roots to develop further into the rootzone. Having a wetter rootzone will help to aid heat/drought stress by giving the roots some moisture to continue plant development/growth. The Organic Matter layer still persists but continual aeration will help to break this down and possible topdressing in the future will help to dilute it.

From the start of the year, we have also been cutting the fairways with 3 or 4 triple greens mowers. This gave a much better/tighter cut than our existing fairway mower which has helped to improve the aesthetics of the fairways. On the 2nd of May, we took delivery of 2 of our brand-new fairway mowers and they have left an even better finish than the triples. Hopefully as the season goes on, the fairways will continue to improve both from an aesthetics and a performance point of view.



Figure 4 - Alex Hodges cutting the 5th fairway following a brush.

New Machinery

Along with the 2 fairway mowers, we have also taken delivery of a Toro 3500 Sidewinder and are awaiting delivery of 2 new rollers. This means we are only waiting on 1 more fairway mower and a semi-rough mower to come in.

All of the additions to the machinery fleet have made a big difference and likewise with the fairways, we hope you will notice a big difference around the course as the season goes on.

Bulk Materials Building Redevelopment

In April, the Building Warrant and Planning Permission for the rebuild of the Bulk Materials Building were granted. We are now awaiting a pre-construction meeting to take place before any site clearance/movement can begin. We are looking forward to this building being rebuilt to suit our needs and to free up some room in our main building which is getting tighter and tighter housing new/existing machinery as well as fertilisers and seed which will be housed in the new Bulk Materials Building once its complete. All tractor mounted equipment will also be housed in the new building allowing us to be better organised our frequently used equipment.



Hot Topic – Growth Potential

Growth Potential (GP) is a model that shows the likelihood of grass growth according to weather conditions. Giving a percentage, growth is considered to be good when the GP is between 50% and 100%. The best possible growth is given as 100%. If weather conditions are too hot or too cold, growth will usually be <50% which can make turf stressed (drought/heat stress) or non-responsive (low overnight temperatures/frosts). GP below 10% would show grass growth as extremely limited.



Figure 5 - GP for May 2023. The green line identifies when “good” growth would occur. As you can see, so far we have only had 3 days over the line.

GP can help to identify fertilising opportunities when the plant is more likely to take up nutrients, overseeding windows where there will be the best chance of germination or when to schedule aeration where recovery will be quicker.

If we look at the GP data from the last few years, it shows how different seasons can be year to year. A “normal” bell curve would be symmetrical with the highest point in the middle and the lowest points at the two sides. A “skewed” bell curve shows the curve leaning to either the left or the right. If we think about grass growth and illustrate this in a chart (see below), you can see how GP does not really start until May and will rise until July before falling towards December.

The “traditional” seasons where everyone assumes in April/May that “Spring has sprung” and we are gearing up for summer, in real terms for Greenkeepers, we are only really starting to see some growth and getting ready for a “Spring flush” when the warm weather finally hits, and the grass starts to grow very quickly. We have been waiting for this flush since the middle of April and had a few days of this in May before GP dropped again. We are, at time of writing, one week behind 2022, but one month ahead of 2021 which was a very cool start to the year.



Figure 6 – A “skewed” bell curve showing the GP from 2021 to 2023

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