March Course Report 2022

Greens

In the February report, we discussed testing for Organic Matter (OM). The results are taken as a benchmark - Marked "OM Test 1".

The tests will normally take place annually, but we plan to test again in August as we are in our early stages.

OM test 2 will show us the OM accumulation and inform our maintenance procedures. We are aiming to give you a good surface for longer, these tests can tell us what the minimum we can get away with, so we are not disrupting the surface unnecessarily.

Patience Please

As the weather improves, the sun shines, the mowers are out and The Masters is on TV, expectations are enormous! However, it is a frustrating time! We will experience a transition from winter to spring and the grasses respond differently. The Bent grass springs into life and historically it is not until late May when the Poa starts to catch up. Please be patient, we will do all we can to give you a putting surface. This is where our motivation has come from to do the OM tests and only disrupt if necessary. We are on your side!

Plant parasitic nematodes

The 14th hole is showing mild signs of stress. A slight discolouring of the turf in a certain light. After digging around and not finding any signs of Leather Jackets, we had a look under our microscope at a sample of the rootzone. We could see some nematodes, so we sent a sample to the Turf Disease Centre (TDC) for an identification[1]

Here is an extract from the report, beginning with a brief description of what we need to be aware of and ending with the results:

> *There are two main types:*
>
> ***Ectoparasites** – These species live in the rootzone and do not enter the plant tissues. They feed by inserting a feeding tube (stylet) into the plant cells and withdrawing the*

[1]Following on from conversations with the TDC, the nematodes we could see using our microscope turned out to be nonparasitic. The parasitic nematodes are a lot smaller and would require more than the 100x magnification we were using. Our identification to the problem was nothing more than intuition.

cell content. Their feeding activity can result in reduced root development and function.

Endoparasites *– These species spend a large proportion of their life cycle inside the plant tissues. They too feed on the content of plant cells but their presence within the plant tissues and, in some cases, their migration through the plant tissues, results in a significant change to normal root development and function.*

The Nematode Damage Index (NDI) provides an indication of the overall level of nematode-induced stress within the turf. It takes in to account the individual Threshold Values for each species (i.e., the population that is likely to cause significant damage to turf) and the recorded populations of each species. An NDI of 1, then there is currently a potential for damage. This potential damage will increase as the NDI rises and/or other biotic/abiotic stresses affect the turf. An NDI >10 indicates that nematode damage symptoms are likely to be currently visible on the turf.

RESULTS *Although there were several root parasitic nematode species present in the received rootzone, it is the Cyst nematode that is currently present in high numbers. The recorded juvenile population (Heterodera sp. J2s) suggests a recent hatch from the mature Cysts (formed as the female dies and 'encysts' at the end of the previous infection cycle). The J2s can only remail alive in the rootzone for a couple of weeks after hatching. During this time, they must either enter a root to begin feeding or die due to depleted food reserves. As the female Cyst nematode matures, her feeding activity directly affects the root physiology. Stress caused to the plant often shows when environmental conditions encourage plant growth. The affected plants are not able to respond as quickly or as strongly as plants in less affected areas.*

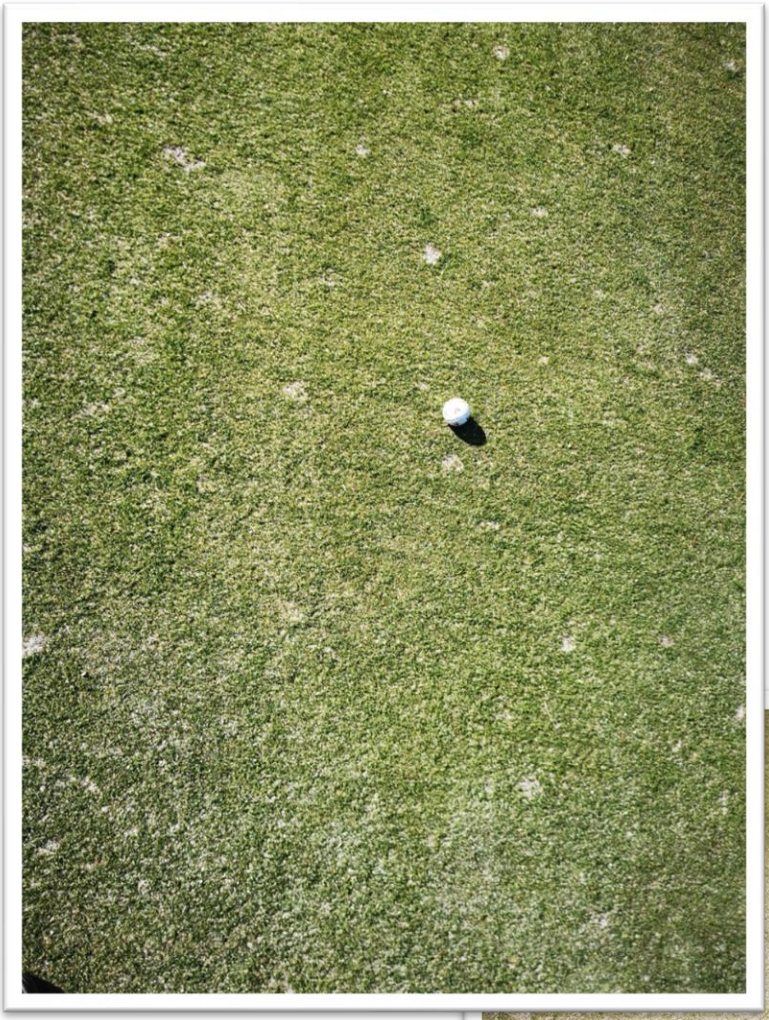
Nematode Damage Index (NDI) for RCGC = 21.6

With this relatively high Nematode Damage Index, we need to treat the greens to prevent any lasting damage. We will use a liquid solution containing Garlic. The active metabolite Allicin found in garlic is known to kill nematodes. There is also some talk of it targeting Leather Jackets too. This is unfounded but would be nice to get two for the price of one!

We applied Garlic at the earliest possible opportunity. We have been instructed to make 2-4 applications to make sure we have success with the Nematode problem.

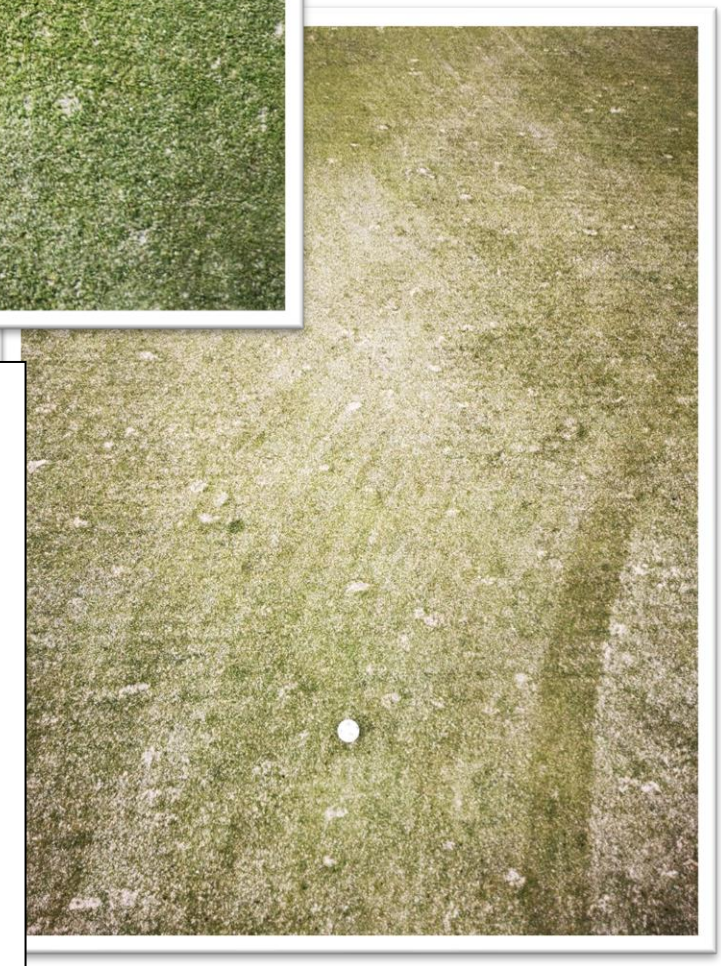
We will send another sample to the TDC to see if the nematode numbers have dropped sufficiently after the garlic applications have been made.

Pitch Marks



One of the reasons we top dress the greens is to create a smooth surface. After we top dressed in the recent maintenance window, it highlighted how many poorly repaired/unrepaired pitch marks we are dealing with.

Every white dot you can see in these photos is a pitch mark.



I must repeat, these are not all unrepaired. Mostly repaired poorly, leaving a scar.

It is vital that you use a pitch mark repairer (supplied if you do not have one – speak to the office).

Please do not feel embarrassed to ask one of the staff here to show you how to repair one, should you be fortunate enough to make one!

Please do not hit it until flat with a putter. It scars. I have not seen another technique that works. *Advice on a correct technique to follow…*

Pitch marks continued…

To help highlight these pitch marks in a photo I thought I would place a ball on each pitch mark on the first green. I quickly realised I did not have enough balls or time!

I decided to pick an area 2 meters wide through the middle of the green, pictured here.

Over 100 pitch marks. Changing holes is near impossible.

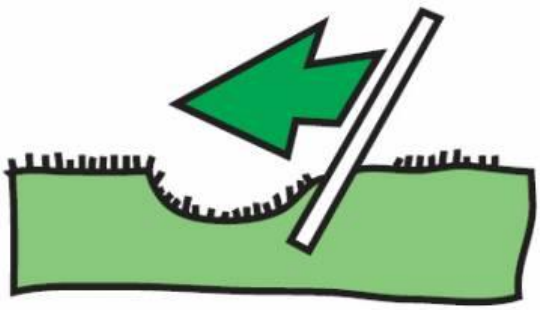
Remember to repair properly –

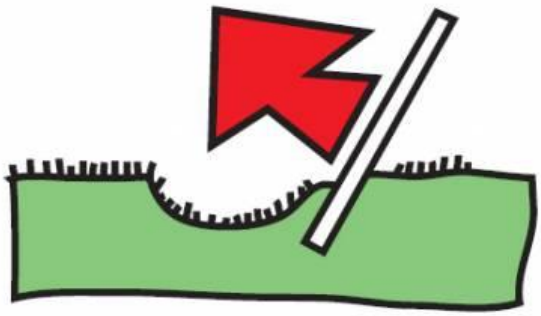
[The Best Way To Repair A Pitch Mark - YouTube] ⟵ Take a look at this video

Pushing the bottom of the depression upward only tears the roots, and kills the grass.

Right: Using the prongs to push grass at the edge of the depression toward the centre

Wrong: Using the prongs as levers to push up the bottom of the depression

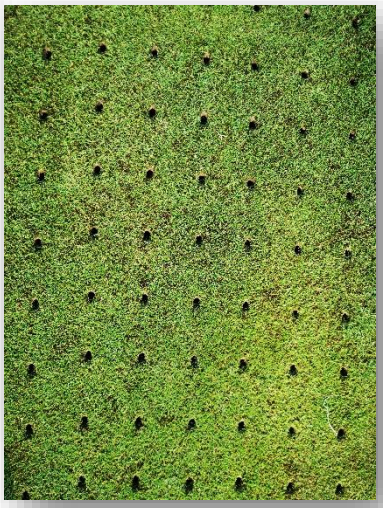




Maintenance Week Update

Preliminary Work on 6 and 13 Greens

Deep aerated and double rate of wetting agent (surfactant) applied



Greens and approaches – Spiked, seeded, top dressed.

As we were forecast rain for the Tuesday (Day 2), we decided to concentrate our efforts on the greens and approaches. All greens and approaches were completed on the Monday (Day 1). We fed them on Wednesday with additional surfactant. We rolled before opening all 18 playing greens on the Friday afternoon.

Tees

Top-dressed and seeded. The spiking had to be pushed back so we could focus on the greens.

Fairways

A fantastic effort from Graeme Barnsley. If there was a prize for "Taking one for the Team" it would go to him. Graeme put in some long days in that tractor, punching holes at a snail's pace but got all the fairways completed in the first week!! He said, "the novelty wears off after about an hour." He spent roughly 50 hours in that cab!

Drainage

Most of the recent drainage areas have been top dressed. This work is ongoing, and plans are in place to expand this work later in the year. The sand needs to be applied to continue the effectiveness of the whole drainage system.

Rough management –

We were lucky with the weather! Brutally cold, but dry! The wind dried the long ecological rough beautifully, enabling us to rake through and flail cut and collect many areas. Ideally, we should be doing the second cut at this time of year, however, such a great feeling getting it done. If these areas are not managed, we see what in ecological terms is known as “succession”. We aim to keep these areas as a feature to frame holes, add character and provide habitat and food for a wide range of animals.

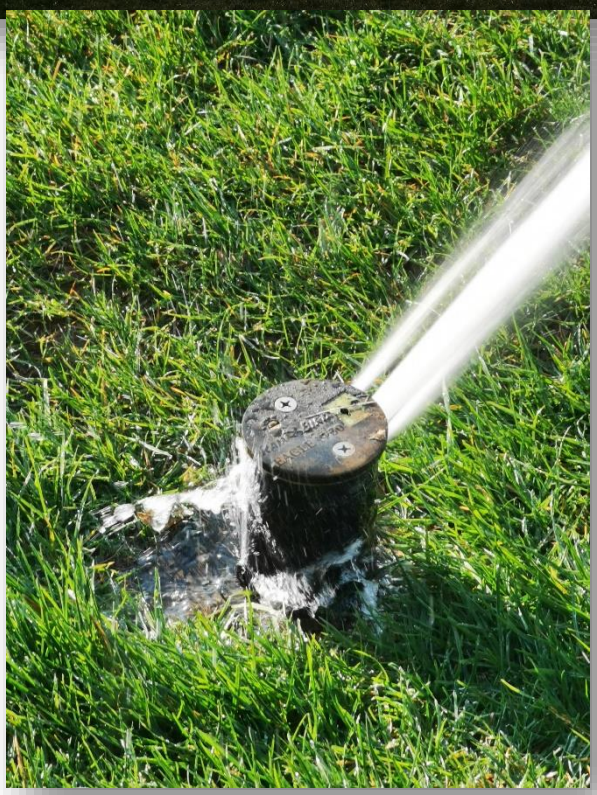
We hired in this brilliant piece of kit, the “Terra Rake”. It ripped through all the coarse grasses enabling our flail mower to make a clean cut and collection.

Irrigation System

Spring commissioning took place on the 14th of March.

Over winter we test the electrical system monthly to see any faults. When the irrigation company is in to commission the system, we ask them to fix these rather than test all sprinkler heads. We do this ourselves later.

The system has been live for a while and in this time, we have noticed a few leaks and weeping heads. We have asked for an engineer to return to fix them.



Team development

Brandon, who joined us in November has survived the winter. He is now learning about the machinery and getting used to what machines go where. We hope to get Brandon up to speed before things really ramp up.

Brandon receiving guidance on the Toro 3400.

Harvey joined Brandon on a recent First Aid course. Pleased to share the news that they both passed.

For those who are unfamiliar, the British and International Golf Greenkeepers Association (BIGGA) hold their annual education conference and exhibition in Harrogate each year – The BIGGA Turf Management Exhibition (BTME). Usually held in January, the conference was moved to March this year due to Covid.

Harvey attended BTME this year and filled his days with educational seminars, all with a purpose to develop his management skills. These ran for 3 days from 9am to 5pm and they ranged from Mathematics to Motivation techniques.

Graeme is continuing his level 2 diploma apprenticeship.