1832
NORTH BERWICK
WEST LINKS

March Course Report

Course Conditions

The old saying that March "comes in like a lion and out like a lamb" is ringing true so far with a mild start, a cold snap followed by heavy rainstorms (38mm in 24 hours) – and we are only halfway through the month. This has played havoc with planning as we are never sure what we are going to be hit with from one day to the next.

The course has come out of the winter period well and knowing that the turf does not really start growing until late April, early May, we are still a few weeks away from being in a "normal" cutting routine on the greens. When the weather does start to warm up, the next hurdle we will face will be the Poa Annua seedheads starting to sprout. Poa Annua is known as a weed grass and is undesirable to have on greens although it can still produce a good putting surfaces. It has shallow roots and can tolerate close mowing so is pretty tough and hard to get rid of. The seedheads will give the greens an almost white look and slows down the speed of the greens considerably. We will use a Plant Growth Regulator (PGR) to stop the production of seedheads and to maintain consistent green speeds.

Figure 1: Snowy 16th Green

17th Bunker

The final pieces of turf were finally laid on 15th of March with the final steps to shape the base of the top side and fill it up with sand. Clyde Johnson and Chris Haspell (Shaper and Course Consultant) have been delighted with the work the team have achieved and the experience gained by the team

has been priceless. Every bunker we do from now should be straightforward after completing 17 with the intricacies that were involved.

We will monitor the rooting of the turf and will reopen the bunker when turf has knitted/rooted well enough to withstand footfall. This has been an epic project to be apart of, especially within the first few months of my appointment and hopefully it's a sign of the standard of work that we will produce going forward.

Figure 2: Turfing finished on the 17th.

Maintenance Week

The course will close at 1400 on Sunday 19th of March for our maintenance week. Ken Siems will now come onsite on the Sunday ready to start straight behind the last group of golf. We will have some of the team in on Sunday to help get a head start and will fit as many greens as daylight allows. Ken has initially planned to run 3 Dry Jects but now will only be able to run 2 so we will be able to get other tasks on the course done such as topdressing approaches or overseeding fairways.

Staff Updates

We are now up to our full head count of staff with new-starts Graeme Nisbet and Josh Lamb starting at the end of February. Graeme has spent the last couple of years working in the USA at Austin Country Club and National Golf Links of America as part of the Ohio State University Internship Programme. Before heading out to the States, Graeme spent 6 months working at Loch Lomond.

Josh Lamb has re-joined us after a year away. Josh was an apprentice and left to go back into Stone masonry where he plied his trade before Covid. Josh was halfway through his SVQ Level 2

qualification, and we are keen for him to finish this qualification and give him the training and development he requires.

We are delighted to have Graeme and Josh on board and they have settled in well the team. It should be noted that even though we are at full headcount, 4 members of the team have only joined us in the last few months and will take a bit of time to find their feet around the course, but we have no doubt that 2023 is going to be a positive year for everyone the further we get into the year.

Shed Updates

Thanks to Philip Gill who has been managing Health and Safety as well as the compliance of the entire site and facilities, it was identified a number of areas where our Greenkeeping Facility was lacking. Since January we have had:

- Fire Alarm installed.
- Upgrade of lighting in the entire building
- New fuse board installed.
- Radiators installed in Office and Canteen.
- Locker Room turned into a Drying Room with new radiator, fan heater and extractor fan installed.
- Additional sockets installed.
- Emergency lights fitted throughout building.
- New lockers with benches
- Office, Canteen, Locker Room, Hallway and main wall in Shed painted
- New fire door installed.
- Removal of urinal in locker room to allow more room for lockers and to make it a Unisex Room
- New whiteboards with club branding and map

We still have a few outstanding jobs to tick off:

- New flooring
- Energy efficient hot water system
- Update shower room and install new Shower.
- New front door
- Security System Upgrade

Machinery Update

This month we have taken delivery of 3 new machines with one more to come in imminently. The JCB 50Z Mini Digger with EngCon Tiltrotator system came in first and is a more impressive piece of kit that we imagined it would be.

1832
NORTH BERWICK
WEST LINKS

Figure 3: JCB in action.

The Vredo Disc Overseeder came in the following week and will help to produce better sward composition and uniformity on fairways, tees and weak areas around the site.

Figure 4: Delivery of the Vredo with Adrian Gardner (Double A) and Richard Heywood (Campeys).

The Widenmann GXI8 Terra-Spike came in this week and is a piece of equipment I have used for years. Usually, tractor mounted aerators are big and cumbersome machines, but this one is very smooth and leaves a very tidy finish.

1832
NORTH BERWICK
WEST LINKS

Figure 5: Widenmann GXI8 on the 5th of the Children's Course.

April Plan

Looking ahead to April with the temperatures rising and more settled weather, we will back into the swing of our normal course maintenance programme. With more sustained growth will be carrying out topdressing, non-invasive aeration such as sarrel rolling and pencil tining on top of foliar fertilising areas as required. Any work that we plan to do will usually be planned for the start of the week so that the course conditions are as good as they can be for competition play on the weekends. The Divot Squad will be in place for the beginning of April, and we look forward to welcoming Alan Tweedie and Ian Peebles back.

Hot Topic – Data Collection

As we go into a the growing season, our data collection on the course starts to increase. Data collection helps decision making and whether we need to carry out certain tasks such as irrigation or fertilising. Below is a small description of some of the data we collect and the instruments used to collect data

Moisture (POGO) – Moisture is one of the most important measurements we take. Moisture management is key to so many aspects of golf course management. We aim to have an average Volumetric Water Content (VWC) of 12-15% on the greens. Lower than this can be stressful to the plant especially during periods of warm weather. VWC of 15-20% is still a good range to be in, but higher than 20% and the firmness of the greens will decrease, disease activity will increase and the less desirable grasses will be content receiving plenty of moisture. Monitoring moisture will also help to aid irrigation planning on whether we need to apply irrigation or follow up with supplemental irrigation via hand watering.

The POGO takes reading on the greens at different points, usually 12-15 on a green, and uses GPS to plug it into a map. This means that we can send members of the team out with maps on their

phones and they can target specific areas of the green that require water, and leave the areas that do not.

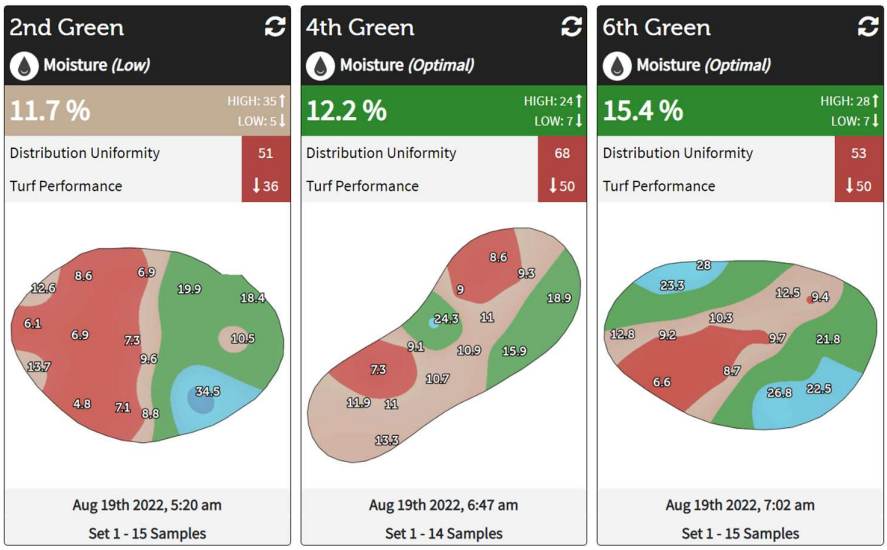

Figure 6: Example of the GPS mapping data on the POGO App.

Surface Firmness (Clegg Hammer) – There is a direct correlation between surface firmness and moisture. If the moisture is too high, it is guaranteed that the firmness readings will be low resulting in soft greens. Typically on a links, we are looking to produce firm greens (>90 gravities) which also another reason why managing moisture levels are so important.

Using a Clegg Hammer which measures the deceleration of a weight from a measured height, measurements are taken across 12 points across the green to which the average firmness is found.

1832
NORTH BERWICK
WEST LINKS

Figure 7: Clegg Hammer and Pogo being used on the 1st.

Green Speed (Stimp Meter) **–** Probably the most controversial and misunderstood tool and measurement we take. The Stimp Meter is used to calculate the speed of the greens by placing a ball on a notch on the Stimp Meter and raising it slowly until the ball comes off the notch and travels across the green. This is done 3 times in 2 directions to find the average reading. Whilst people assume that we use the stimp to try and make the greens faster, we use it to find a consistent ball speed but to all have a dataset which shows how different weather patterns, mowing or rolling practices and or day-to-day growth can affect green speed.

Clipping Volume – Something that was started in 2022 by Darren McLaughlan and was found to be highly useful was measuring the clipping volume taken off by the mowers on greens by putting it in a bucket and recording how many clippings there are in litres. After a few months of measuring the clip we were able to make decisions based on how much we were taking off. Above a certain number it indicated that PGR might have to be applied or if the number was took low, it was perhaps time to apply a foliar fertiliser. Even if the clip was high, but the green speeds were still of a good pace, it might mean we would need to groom/verticut the greens to remove some lateral growth.

Figure 8: Buckets used for Clipping Volume. Grass clippings are recorded in litres.

Height of Cut (Prism Gauge) – Used to identify the "Actual" height of cut" vs the "Bench" height of cut. This is more useful to Richard, our Mechanic, to make sure that the mowers set to the correct height of cut and are cutting correctly.

Soil Temperature (Thermometer) – Measuring the soil temperature helps us to know if conditions are good for seed germination or fertiliser uptake. Seed will germinated at average temperatures over 10^{O}C and the turfs ability to grow (growth potential) is at average temperatures over 6^{0}C.

Greenkeeper App – When we started collecting Clipping Volume, we were looking for a simple way to record our data and to easily access the day to day differences. Greenkeeper App is an online data management tool specifically for greenkeepers which records all of the above datapoints with some more options. It also includes lots of different statistical models which help to predict growth, disease activity or when to apply fertilisers or fungicides. It has a really user friendly interface and is easy to interpret data such as the example below which shows the day to day differences of clip volume collected and the target zone in yellow.

Figure 9: Greenkeeper App chart showing the variance in Clipping Volume collection and the target area in yellow.

1832
NORTH BERWICK
WEST LINKS

Kyle Cruickshank
Course Manager