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Hartley Wintney Golf Club

Dyna Core test 01/10/2022 – 27/05/2023

General:

The trial was run over a period of 6 months on all greens at Hartley Wintney Golf Club.

The aim was to implement hollow tining with the Dyna Core units fitted with 5mm hollow tines to a depth of 20-25mm monthly throughout the winter months.

Three greens were selected, 1st, 11th and 18th and samples were taken before the trial started to identify organic matter levels at 0-20mm, 20-40mm, 40-60mm and 60-80mm depths.

The Dyna Cores were set to a depth of 20mm and for the purpose of this trial 0-20mm was the focus.

This maintenance procedure was implemented 6 time before additional tests were implemented. Each operation took between 4-5 hours to complete and required an operator and 4 members of the green staff to remove the cores a total of approximately 20 man hours per operation.

The 1st green had been rebuilt to USGA recommended guidelines during 2015 and opened for play in May 2016, the turf was removed and then re-laid once construction was completed.

The 11th green is a traditional soil push up green designed and built in 1920-30.

The 18th green is of sand construction and was built during 1999 and opened for play in 2000 when the course was extended to 18 holes.

The aim of the trial was to achieve a reduction of 0.5-1% in the organic material within the top 20mm.

The 1st green presented 9.8% organic material in November 2022 and this had reduced to 7% by May 2023, a noticeable reduction.

The 11th greens presented 8.2% in November 2022, and 9% by May 2023 a slight increase which was not expected.

The 18th green presented 8.1% organic material in November 2022, and this had reduced to 7.5% by May 2023, a noticeable reduction.

The reduction on both the 1st and 18th greens was better than expected and if this programme continues then lower levels of organic material will be achieved and the greens will move from category 2 to category 3.

The overall depth of the organic material on the 11th green contributes to the different results, the green has held water all winter due to its construction. This caused grass to lose roots and stems throughout the winter. The Dyna Cores did not always extract the cores cleanly due to the saturated ground conditions causing suction. However, the surface of the green is firmer and if the programme is continued then reduction of organic material should begin to be evident.

This regular removal of organic material resulted in the greens not requiring a renovation programme at the end of March and allowed the greens staff to over-seed and top dress the greens without disrupting play at the start of the season.

Verti-draining together with slit tining were implemented during the winter to relieve compaction. Top dressing was not applied until the trial finished.

Conclusion.

There has been an average reduction in the organic material within the 0-20mm layer from an average of 8.8% to 7.3% which is better than expected. Hartley Wintney Golf Club have 15 greens which are of sand construction and only three of the original 1920-30s push up greens. If all greens had been tested and monitored, then the average reduction would have been shown to be greater.

Further information is required on the 11^{th} green to understand why its results differed from the other greens.

The members at Hartley Wintney Golf Club were not aware of the trial, except the committee and board members and these operations caused no adverse comments throughout the trial.

The greens are firmer and in better condition than normal following a long cold and wet winter. Matt Rolls has been happy with the results and would like to keep the Dyna Core units for future use.

Therefore, if this type of work was to be implemented on greens which drain well, have a high percentage of sand top dressing within the top 5cm then reductions of 1-2% of organic material are achievable during the winter months without causing disruption to the golfers.

If the greens are push-up soil based greens the reductions will be less unless the frequency is increased to once ever 3 weeks.



Sample from the $1^{\rm st}$ green showing the dense layer of organic material approximately 18mm in thickness.



Sample from the 11th green showing the dense layer of organic material approximately 30mm in thickness.



Sample from the 18th green showing the dense layer of organic material approximately 18mm in thickness with a thin layer at approximately 26mm depth from the surface.