

European Turfgrass Laboratories Ltd

Testing Organic Matter in your Golf Green

Organic matter is present in the profile within all golf greens. It's essential for encouraging soil micro-organisms to thrive, stabilising pH and helping to retain water and nutrients for the grass.

It can have a major impact on the performance of the green. Too much organic matter or thatch can be problematic, causing the playing surface to become soft and less resilient, reducing the green speed. There is a greater risk of disease, excessive water retention, increased dry patch and rooting could become shallower. Too little thatch and the greens could be found to be too hard.

Measuring the organic matter in the greens can be a useful indicator for the need for different types of management practices on the putting surface. These results can be used to determine how often and the best practice to de-thatch your greens. Testing the organic matter at different depths can help assess the areas in the profile where improvements are required.

ETL recommend testing greens regularly to see the effectiveness of your management practices.

Sampling Method: Option 1 Sampling Using a Hole-Changer Corer



Step 1 Select the area to be sampled. Use a hole-cutter cup device to take the sample.



Step 2 Remove the core being as careful as possible. It is vital that the core remains undamaged and intact.



Step 3 Place the core on some silver tinfoil, or cling film. Wrap tightly to minimise the risk of the core breaking apart.



Step 4 Remember to label your sample. ETL recommend placing the core in two plastic bags and again, wrap tightly to keep the core safe from damage.



Step 5 The sample (s) should then be placed in a firm cardboard box, fill up any extra space in the box with bubble-wrap or old newspapers. The sample should not be free to move around in the box – again, minimise the risk of damage in transit.



Step 6 The sample must arrive intact in the laboratory for the organic matter profile testing of your sample to be completed.



Step 7 The grass is removed from the core – this layer is discarded and is not tested.



Step 8 Using a tape measure and knife, the core is split into sections – this can be at the interval of your choice. Most clients prefer to have either 20-25mm intervals (or 1" intervals).

ETL uses ASTM Method F1647 (Method A) - "Organic Matter Content of Athletic Field Rootzone Mixes". Each section is tested in accordance with this method. The test results are given for each separate layer tested.



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Sampling Method: Option 2 Sampling Using an Agronomists Corer



Step 1 Select the area to be sampled. Use an agronomists coring device to take the sample(s).



Step 2 Push the corer into the ground trying to keep the corer in an upright position.



Step 3 Gently pull the corer out of the ground. Check to see whether the core is intact. If it's not, resample the area.



Step 4 Each core should be about 10cm in length if possible.



Step 5 Gently remove the sample core from the device. Place the core (s) on either silver tinfoil or cling-film.



Step 6 To enable testing to be completed, multiple cores from each test area should be taken (eg. 5 cores from each green).



Step 7 Wrap tightly to minimise the risk of the core breaking apart. This should be packaged securely, to avoid any damage to the cores in transit.

Upon arrival at the laboratory, the samples are treated exactly as those samples taken with a hole-cutter device (see previous page, steps 7 & 8).

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