TerraCottem®, Leading soil conditioning technology

SUMMARY TRIAL REPORT

Turf Research on the Käpylä Football Pitch

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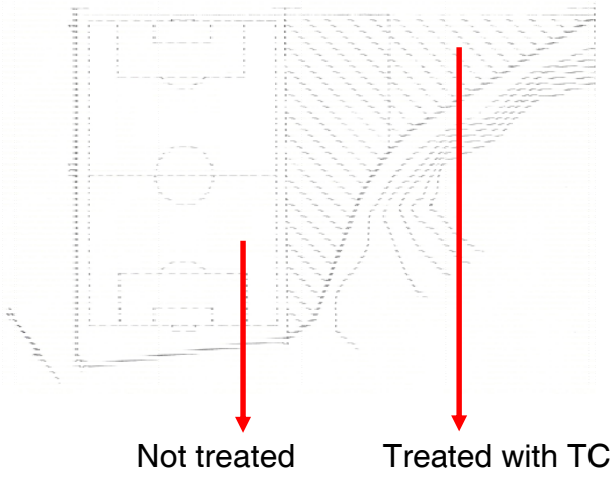
The Laboratory of Engineering Geology at Tampere University of Technology (TUT) has carried out a study (1997-2001) on the properties of a turf area of a football pitch in Käpylä, Helsinki. The objective of the study is to examine elasticity and water permeability of an area treated with the TerraCottem® Universal soil conditioner and an area not treated with the product. In addition, samples from both areas were taken in order to visualize root growth. A summary of the results is presented below.

1. Location

Fig. 1 Location of TC – treated and non – treated areas at Käpylä Football Pitch



Substrate samples of the Käpylä turf area were taken at different locations, both on TerraCottem®-treated areas and non-treated areas and at different times (1997, 1998 and 2001). These samples were analyzed for particle size distribution and root growth. The field measurements were done on elasticity (by using a Loadman apparatus) and water permeability (infiltrometer test).

The benefits of using TerraCottem® on sports turf are mainly better root growth, which results in a stronger sward, and an increase of the water retention capacity of the top layer into which TC was incorporated. This studies also shows that the presence of TerraCottem in the top soil does not reduce its drainage capacity nor makes the surface too soft.

2. Trials and results

2.1 Elasticity

All measurements (1997, 1998 and 2001) show that there is no significant difference between the elasticity levels of the TerraCottem®-treated areas and the non-treated areas. Graphs and tables on these measurements can be seen in 3 scientifically reports made by TUT.

2.2 Water Permeability

All measurements (1997, 1998 and 2001) show that the values for water permeability at the TerraCottem® -treated areas are on the same level as those measured from the other locations. Graphs and tables on these measurements can be seen in 3 reports made by TUT.

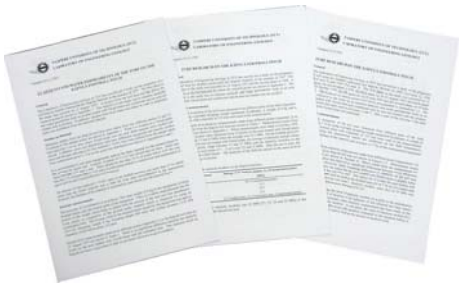


Fig. 2 TUT test reports (1997, 1998 and 2001)

2.3 Root Growth

Fig. 3 & 4 Käpylä football pitch sod's root development in a TC-treated (left) and non- treated (right) root zone (9.7.1997)

Fig. 5 Root system of the turf on a TerraCottem®-treated area (right) and a non- treated area (left) (20.05.98)

Fig. 6 & 7 The rooting of sod into the top layer with (bottom) and without (top) TerraCottem (9.7.1997)