



Bulk Density Trial

Trial Objective:

To determine the bulk density of TOPSOIL as delivered and once placed and settled into a landscaping scheme or on a sports pitch.

Method

The trial area was set up at British Sugar's Newark site on the 30th March 2007 and concluded at the end of September 2007.

Landscape20 was placed and then firmed to a depth of 300mm using the back of an excavator bucket .

In-situ bulk density tests were then undertaken by geotechnical testing laboratory, Enverity, at three stages after the placement of the TOPSOIL.

These were:

1. Immediately after placement
2. Five weeks after placement
3. Twenty four weeks after placement



Example of the type of excavator and bucket used to place the Landscape20



Taking a core sample for Bulk Density measurement



Preparation of the on-site sample

In-Situ Bulk Density Test Results – Consolidated TOPSOIL

Visit	Bulk Density (Mg/m³)	Moisture Content (%)
1	1.74	19.2
2	1.56	19.8
3	1.66	21.2

Laboratory-based bulk density tests were also undertaken on disturbed samples of TOPSOIL. The samples were lightly compacted in the laboratory to represent TOPSOIL in its 'loose' state.

Laboratory Bulk Density Results – Loose TOPSOIL

Visit	Bulk Density (Mg/m³)	Moisture Content (%)
1	1.23	20
2	1.24	20
3	1.26	24

**Andy Spetch,
Business Manager
British Sugar TOPSOIL, September 2007**