



Plant Growth Measurement

SmartSlope Modules are intended to be internally planted with a specified selection of plant material in order to achieve fully grown over walls and slopes. Full grow-out and plant coverage targets may be set forth in the project plans by the owner and their agents. Clear definitions of the desired coverage must be set forth in the project documents, as well as a standardized method of measurement. Based on our experiences in laboratory research at Southern Illinois University at Edwardsville and with their permission, we have put forth the following methodology.



Southern Illinois University at Edwardsville Method:

Plant growth (wall coverage - which includes the pockets and wall faces) is measured using a dot grid coverage template with 78 (seventy-eight) 4cm-diameter holes, spaced 1.1cm apart, arranged in 13 rows and 6 columns.

The coverage template is placed over the wall aspect - we clip it to the top wall block and drape it down the side.

The number of holes containing no vegetation is counted and recorded.

In our study measurements are made on the North, South, East, and West aspects of each green wall.

Coverage is measured on a monthly interval on each replicate wall.

The equation is $((78 - \text{\#empty spaces})/78) * 100$ to calculate percent coverage.

Thus, 100% coverage would mean vegetation completely conceals the growing media and retaining wall blocks on that aspect (and there are no open holes).

