

Popular summary of master thesis:

IMPACT OF GREEN WALLS ON INDOOR AIR HUMIDITY. A case study of a medium-sized office building in Malmö, Sweden.

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Enable an adequate comparison *before* and *after* the GW installation requires defining an appropriate space for a fair evaluation. Regarding humidity, the conditions *before* and *after* the Green Wall were explored by establishing a similar scenario to compare, inside an office premise. Although the humidity difference experienced in the office might cease in the characteristics of the installed green structure, this study tested and analyzed the green wall's humidity contribution according to the air variations. In the same vein, according to measurements and data collection, suggesting that the green installation positively impacts humidity in a real-life building.

Regarding the data collection, while considering outdoor temperature (°C), vapor ratio (g/kg), and airflow rate (l/s), the measurements given by sensor devices were carried out and recorded from Monday to Friday for 27 weeks, representing more than 3600 measurements for each study week. The main objective of the approach was to identify the most similar conditions *before* and *after* the GW installation to ensure a virtuous comparison. Although a few limitations were identified and described later in this thesis, the results obtained answered a set of interrogations, suggesting that humidity is positively affected inside the office due to the presence of the GW installation.

Humidity is essential when determining indoor air quality, occupants' comfort, and building energy consumption. Notwithstanding that, an appropriate range for a healthy and comfortable indoor environment is commonly recommended between 40% and 65% RH, low indoor humidity is a real issue in cold climates such as Sweden. This study hoped to advance knowledge and propitiate discussion about humidity and green walls technology. The conclusions from this study would lead us beyond further analysis in favor of building technology, occupants' comfort, and well-being.