



Green Roofs

Green roofs replace traditional roofing materials like as asphalt, stone and cement with plants. Think of the millions of potential square feet this adds to the area that traditional landscapes encompass. There are many aesthetic, environmental, and financial benefits to increasing green space in this manner; green roofs are better looking than roofs made from traditional materials they help to cool the air, the plants and soil, act as acoustic insulators and therefore reduce noise, succulent green roof plants reduce the risk of fire, green roofs absorb excess rain and reduce storm water runoff, water that is shed is filtered and acid rain is buffered, habitat for insects and birds is created, roof life is extended, and energy is conserved.

Extreme drought resistance is one of the most important characteristics when selecting plants for green roofs. Succulent water-holding plants like *Sedum*, *Allium*, *Sepervivum*, and *Delopherma* meet this requirement. The best green roof plants must both store water and have a special type of metabolism called “Crassulacean Acid Metabolism”, or CAM for short. CAM plants are adapted particularly well for harsh green roof conditions. When exposed to drought, their stomata (leaf pores) are open at night rather than during the day, as is the case with most plants. CAM plants exchange gases (oxygen and carbon dioxide) in the dark when it is cooler and less windy. Cam plants are up to ten times more efficient with water conservation than non-CAM plants. Other characteristics to consider include: disease and insect resistance, low maintenance, longevity and aesthetic attributes.

