

Roof Garden Research

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Cities from hamlets to metropolises are studying rooftop gardens for their climate tempering and water saving abilities.

Roof gardens can also be valuable for providing "urban arthropod habitats" – homes for insects. Oregon State University (Corvallis, OR) tested bare roofs compared with green roofs housing eight plant species, and reports that "some notably beneficial insects such as wasps, bees and syrphid flies were significantly more abundant on green roofs than bare roofs." Extensive green roofs thus could be as valuable as parks for increasing beneficial insects.

Depth of soil mix for rooftop plantings is vital to their long-term survival. In experiments at Michigan State University (East Lansing, MI), 12 species of sedums were monitored over four years. Best growth and coverage of the area through that period was seen with mix depths of 3" to 4". These depths held substantially more moisture and promoted larger root system than a 2" depth.

Where greater planting mix depths can safely be used, practically all environmental benefits are increased, so methods of reinforcing roofs to hold greater weights are a priority.