

## 保水剂对垂盆草建植和生理代谢的影响

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### 摘要:

研究了基质(蛭石、泥炭和粉煤灰等体积混合)中添加保水剂对垂盆草*Sedum sarmentosum*生长及生理代谢的影响。结果表明: 适量保水剂能促进垂盆草新生芽的萌发和伸长, 提高光合色素含量、叶片相对含水量、游离氨基酸含量和根系活力, 有利于干物质的积累。在干旱处理后, 保水剂对促进植物干物质的积累、地上部的生长以及提高叶片相对含水量、游离氨基酸含量的作用更明显, 但过高的用量反而会降低根系活力。根据综合表现, 1 g/L是垂盆草屋顶草坪较适宜的用量。

关键词: 保水剂; 垂盆草; 生理代谢

## Effect of water retaining agent on the growth and physiological metabolism of *Sedum sarmentosum*

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### Abstract:

The effects of water retaining agent (WRA) on the growth and physiological metabolism of *Sedum sarmentosum* were studied through adding WRA to the substrate (vermiculite, peat, coal ash with the same volume). The results showed that the application of WRA promoted the bud germination and elongation and increased the contents of photosynthetic pigments, the leaf relative water content, the free amino acid contents and the root vigor. And the dry matter accumulation was improved as well. It was more significant for increasing the accumulation of dry matter, the growth of aboveground part, the leaf relative water content and the amino acid contents under drought condition. However, the high dosage would reduced the root vigor. The suitable amount of WRA used in the roof turfgrass of *Sedum sarmentosum* was 1 g/L.

Keywords: water retaining agent *Sedum sarmentosum* physiological metabolism

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