

植物生产层

植物生长延缓剂对金钱树抗寒性指标的影响

姜英, 彭彦, 李志辉, 任世奇

摘要:

探讨了植物生长延缓剂多效唑和烯效唑对盆栽金钱树(*Zamioculcas zamiifolia*)冬季生长和抗寒性生理指标的影响。结果表明,多效唑和烯效唑均可增加金钱树小叶叶宽、叶厚及质量,增加叶片的可溶性糖含量,促进抗氧化酶活性,增强细胞的活性氧清除能力。在5℃/4℃ 2 d的低温胁迫过程中,植物生长延缓剂处理过的金钱树质膜相对透性及叶绿素荧光参数Fv/Fm变化幅度较对照清水处理明显减小,有助于提高金钱树的抗寒能力。

关键词: 植物生长延缓剂; 金钱树; 抗寒性

Effects of plant growth regulators on cold tolerance of *Zamioculcas zamiifolia*

Abstract:

The effects of paclobutrazol and uniconazole on the cold tolerance of *Zamioculcas zamiifolia* were studied through pot experiment. The results showed that two plant regulators could increase the width, thickness and weight of leaf. They could increase the soluble sugar content, promote the activity of antioxidant enzymes and increase the cellular reactive oxygen scavenging capacity. After being exposed to low temperature stress of 4 to 5 °C for 2 days, the differences were found between treated and untreated plants in terms of leaf membrane permeability and Fv/Fm (fluorescence variable/fluorescence maximum). Treated plants had significantly lower leaf membrane permeability and smaller variation of Fv/Fm. It was concluded that paclobutrazol and uniconazole could improve the cold tolerance of *Z. zamiifolia*.

Keywords: plant growth retardant *Zamioculcas zamiifolia* cold tolerance

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