

赤霉素、水杨酸、柠檬酸和蔗糖对灰毛黄栌叶色变化的影响

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The Effects of Several Chemicals on Leaf Color Changes of *Cotinus*

coggygia var. *cinerea*

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摘要 2011 年秋, 选取长势一致的4 年生灰毛黄栌 (*Cotinus coggygia* var. *cinerea* Engl.) 组培苗, 喷施不同浓度的赤霉素 (GA₃)、水杨酸、柠檬酸和蔗糖水溶液, 研究其对叶色的影响。结果表明, 使用浓度为0.01 mmol · L⁻¹ 的赤霉素处理可以推迟灰毛黄栌的落叶期, 从而使叶片观赏期平均延后5 d; 用浓度为0.5 mmol · L⁻¹ 的水杨酸处理, 会使叶片观赏期平均推迟7 d, 而浓度为1.0 mmol · L⁻¹ 的水杨酸处理, 叶片的观赏期平均提前了3 d; 喷施4.8 mmol · L⁻¹ 的柠檬酸和200.0 mmol · L⁻¹ 的蔗糖溶液, 都能显著提高灰毛黄栌叶片中花青素的相对含量, 使叶片更红, 并且使叶片的观赏期分别提前了6 d 和9 d。

关键词: 灰毛黄栌 叶色 赤霉素 水杨酸 柠檬酸 蔗糖

Abstract: The leaf color changes of four-year-old *Cotinus coggygia* var. *cinerea* Engl. trees were studied by treating them with different concentrations of gibberellins (GA₃), salicylic acid, citric acid, and sucrose. The results showed that the application of 0.01 mmol · L⁻¹ GA₃ could prolong the leaf-absent period and extend the ornamental period for average of five days compared with that of control. The ornamental period was delayed for average of one week by treating the trees with 0.5 mmol · L⁻¹ salicylic acid while the treatment of 1.0 mmol · L⁻¹ salicylic acid advanced the ornamental period for three days. Both the application of 4.8 mmol · L⁻¹ citric acid and 200.0 mmol · L⁻¹ sucrose significantly made the ornamental period in advance for six days and nine days, respectively. Meanwhile they increased the relative content of anthocyanins in leaves and deepened the red color of leaves.

Keywords: *Cotinus coggygia* var. *cinerea* Engl., leaf color, gibberellin (GA₃), salicylic acid, citric acid, sucrose

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