

عنوان مقاله:

(Influence of Methyl Jasmonate on Menthol Production and Gene Expression in Peppermint (*Mentha x piperita* L

محل انتشار:

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خلاصه مقاله:

Peppermint has considerable commercial value and widely cultivated for essential oil production, especially menthol. The aim of this study was to determine the quantitative expression of pulegone reductase (pr), menthofuran synthase (mfs) and limonene synthase (ls) genes in menthol biosynthesis pathway in *Mentha x piperita*, using semiquantitative RT-PCR analysis and evaluating menthol production by GC/MS analysis in presence of different methyl jasmonate concentrations (MJ; 0, 0.1, 0.5 mM). RT-PCR analysis showed that pr, mfs and ls specifically induced by MJ treatment. The transcripts of these genes up-regulated within 4-12 h of MJ induction followed by down-regulation after 24-48 h of MJ exposure.

کلمات کلیدی:

Mentha x piperita, methyl jasmonate, Gene expression, Pulegone reductase, Menthofuran synthase, Limonene synthase

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