Effect of elicitors on the production of naringin and rutin in leech lime (Citrus hystrix) callus

ABSTRACT

Treatment of Citrus hystrix callus with various types of elicitors decreased the callus growth as the concentration of elicitors increased. However, callus growth remained relatively constant at 0.05% (w/v) alginate and slightly increased to 1.30 ± 0.04 g dwt./culture at 0.1% (w/v) alginate. Analysis of the flavonoids using high performance liquid chromatography (HPLC) showed that only naringin and rutin were produced. Maximum production of naringin (12.13 ± 0.07 mg/g dwt.) and rutin (3.09 ± 0.05 mg/g dwt.) (p ≤0.05) was found in callus treated with 0.5% (w/v) agarose.

Keyword: Citrus hystrix; Elicitors; Naringin; Rutin contents