

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