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In Vitro Mass Propagation of Cucumis sativus L. from Nodal Segments

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Abstract: An efficient reproducible protocol for the in vitro multiplication of cucumber (Cucumis sativus L.), an important vegetable crop, was developed from nodal explants. Addition of case in hydrolysate to the shoot induction medium (MS + BA) significantly enhanced the number of multiple shoots or growth of the regenerants. Optimum shoot regeneration was observed on Murashige and Skoog (MS) medium containing 1.0 μ M 6-benzyladenine (BA) and (200 mg/l) case in hydrolysate. Rooting of isolated in vitro raised microshoots was readily achieved with (1.0 μ M) α -naphthalene-acetic acid (NAA) in 1/2 MS. The plantlets thus obtained were successfully established in a greenhouse.

Key Words: Cucumis sativus, plant growth regulators, nodal segments, multiple shoot, vegetable crop, casein hydrolysate. Abbreviations: BA, 6-benzyladenine; CH, casein hydrolysate; KIN, 6-furfurylaminopurine; NAA, a-naphthalene acetic acid; MS, Murashige and Skoog

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