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In vitro Clonal Propagation of a Multipurpose Tree, *Ziziphus spina-christi* (L.) Desf.

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Abstract: A simple and efficient protocol for the clonal micropropagation of *Ziziphus spina-christi* (L.) Desf., a multipurpose native tree species highly adapted to the harsh environmental conditions of Kuwait, has been established using shoot tips and stem nodal segments as explants. The explants were cultured on Murashige and Skoog (MS) basal medium with and without growth regulators. The nodal segments and shoot tips isolated from the primary cultures were cultured on hormone-free MS media containing 100 mg/l myo-Inositol, 150 mg/l glutamine and 2.5% sucrose for plant growth and elongation. Shoots for multiplication were maintained on MS media with low concentrations of 6-benzylaminopurine (BA) and subcultured every 20 days. However, explants cultured in higher concentrations of cytokinin and auxin induced callus. Shoots transferred to the MS media containing 10 mg/l Indole-3-butyric acid (IBA) were rooted. Rooted plantlets were transferred to sterile soil media for acclimatization and field evaluation.

Key Words: *Ziziphus*, micropropagation, cytokinin, acclimatization

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