

Regeneration of babaco (*Carica pentagona* (Heilborn) Badillo) using leaf explants and shoot-tip culture

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Abstract

Babaco [*Carica pentagona*, (Heilborn) Badillo] was propagated by shoot formation from leaf sections and rooting of shoottips. On proximal leaf sections, the initiation of new shoots was restricted to pre-existing outgrowths attached to the vascular system, occurring only in presence of green, chlorophyll-rich leaf tissue. Shoot formation was effected mainly by TDZ (alone or in combination with IAA, NAA and GA3) and maltose. In sectors becoming morphogenic, these conditions maintained or even increased the initial chlorophyll content of the explant, in contrast to non-morphogenic portions that became yellow. No shoots were formed from yellowing tissue. Application of BA as pre-treatment to donor plants, enhanced shoot formation in TDZ treatments in vitro. For shoot-tips, rooting was promoted in the presence of several growth regulators including IBA and in presence of phloroglucinol.