

HISTOLOGICAL AND SEM STUDIES ON ORGANOGENESIS IN ENDOSPERM-DERIVED CALLUS OF KIWIFRUIT (*ACTINIDIA DELICIOSA* CV. HAYWARD)

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Received July 5, 2006; revision accepted November 20, 2006

Regeneration in endosperm-derived callus of *Actinidia deliciosa* cv. Hayward was documented by SEM combined with histology. Two kinds of callus, morphogenic and nonmorphogenic, were observed. Morphogenic callus consisted of compact cell clusters with epidermis-like tissue covered with a mucilaginous or continuous membranous layer, which partially disappeared, turned into fibrils, or became damaged. Regenerating shoots consisted of the apex and primordial leaves. Abnormal structures were also formed, frequently arrested in development. PAS reactions indicated that the mucilaginous layer and network present in intercellular spaces contains polysaccharides. Nonmorphogenic callus consisted of weakly attached cells without a covering membranous layer.

Key words: *Actinidia*, endosperm culture, regeneration, SEM, histological analysis.