

A- 13

IN VITRO REGENERATION FROM LEAF EXPLANTS OF AVOCADO (*PERSEA AMERICANA* MILL.)

C.L. Encina¹, N. Westendorp¹, P. Gil¹, E. Caro¹ and J.R. Botella².

¹Plant Tissue Culture & Biotechnology Lab. Estacion Experimental La Mayora (C.S.I.C.) s/n. 29750 Algarrobo-Costa. Malaga. Spain. E-mail: clencina@eelm.csic.es

²Plant Genetic Engineering Lab. Dpt. of Botany. Univ. of Queensland. Brisbane. Qld 4072. Australia.

A plant regeneration system from leaf explants of avocado (*Persea americana* Mill.) was established. Explants consisted of young leaflets with petiole, with the basal part of the petiole and the distal part of foliar limb discarded, obtained from avocado zygotic embryos seedlings germinated *in vitro* in dark conditions (Pliego-Alfaro, 1983). Regeneration was induced on MS salts (Murashige and Skoog, 1962) supplemented with 0.6 mg l⁻¹ BAP, 0.1 mg l⁻¹ IBA, 0.1 mg l⁻¹ GA₃, 100 mg l⁻¹ L-glutamine, 50 mg l⁻¹ arginine, 500 mg l⁻¹ casein hydrolysate, 1 mg l⁻¹ PVP, gelified with 8 g l⁻¹ Bacto-agar. Groups of bud-like regenerative structures were developed in 90% of explants, located along the edges of the foliar limb and in the petiole cutting area. Little or no callus growth was observed. Most of developed primordia (70-90%) degenerated and became necrotic. When these bud-like structures were detached from the primary explant and incubated in dark on fresh medium an average of 6% of them sprouted into normal shoots. High rooting percentage (80-90%) was obtained following the protocol developed by Barcelo-Muñoz et al. (1999).