

La embriogénesis somática es un método eficiente para la micropropagación de plantas, sin embargo, su proceso incluye distintos factores que inducen variación somaclonal, la cual es no deseable para una producción clonal. El objetivo del presente trabajo fue determinar la variación genética en plantas de papaya regeneradas mediante embriogénesis somática indirecta utilizando la técnica de AFLP. Se utilizaron como explantes embriones cigóticos de *Carica papaya* var. Maradol. También, se utilizaron hojas y meristemas de papaya silvestre (*Carica* sp.) adicionando 1.0 mg l<sup>-1</sup> de ácido naftalenacético, 1.0 mg l<sup>-1</sup> de cinetina y 1.0 mg l<sup>-1</sup> de ácido giberélico para la regeneración de plantas por embriogénesis somática. Se utilizaron tres combinaciones de iniciadores: E-ACG + M-CTG, E-ACT + M-CAT, E-ACT+M-CAG. Las plantas de papaya silvestres regeneradas a partir del mismo explante donador presentaron alta similitud (95%). Por otra parte, cuando se analizaron plantas regeneradas a partir de diferentes explantes donadores en papaya Maradol esta similitud fue menor (87%). Con los resultados se puede concluir que las plantas regeneradas por medio de embriogénesis somática no presentan variación genética

Palabras clave: *Carica* sp., Maradol, propagación masiva

#### Determination of genetic variation in papaya plants regenerated through somatic embryogenesis

Somatic embryogenesis is an efficient method for the micropropagation of plants, however, the process involves several factors that induce somaclonal variation, which is undesirable for clonal production. The aim of this work was to determine the genetic variation in papaya plants regenerated through indirect somatic embryogenesis using AFLP techniques. Zygotic embryos of *Carica papaya* var. Maradol were used as explants. Also, Leaves and meristems of wild papaya (*Carica* sp.) were used as explants adding 1.0 mg l<sup>-1</sup> naphthaleneacetic acid, 1.0 mg l<sup>-1</sup> kinetin and 1.0 mg l<sup>-1</sup> gibberellic acid for regeneration of plants by somatic embryogenesis. It was used three combinations of primers: E-ACG + M-CTG, E-ACT + M-CAT, E-ACT + M-CAG. Wild papaya plants regenerated from the same donor explant showed high similarity (95%). Moreover, plants regenerated from explants from different donors in papaya Maradol the similarity was less (87%). With these results we can conclude that the regenerated plants via somatic embryogenesis do not have genetic variation.

Keywords: *Carica* sp., Maradol, mass propagation

#### T1.11 *Jatropha curcas* micropropagation: a new research at Embrapa Temperate Agriculture

Leonardo Ferreira Dutra<sup>1\*</sup>, Lorena Pastorini Donini, Sérgio Delmar dos Anjos e Silva<sup>1</sup> Natália Dias Gomes da Silva<sup>1</sup> Fernanda Beatriz Thiel

Embrapa Clima Temperado Rodovia BR 392, km 78. Caixa Postal 403. CP 96010-971, Pelotas, Rio Grande do Sul, Brazil,

\*e-mail: leonardo.dutra@cpact.embrapa.br

*Jatropha* is a species that has the potential to commercial feedstock for the biofuel production. *Jatropha curcas* superior genotypes have been selected at Embrapa Temperate Agriculture, Pelotas, RS, Brazil. Aiming the genetic characteristics of interest maintenance and production of seedlings free of virus and other pathogens, and considering the scarcity of micropropagation studies, works with *in vitro* cloning of *Jatropha curcas* were started. Stock plants at 6 months old kept in greenhouse and previously submitted to treatment with fungicide and bactericide served as explants source. New shoots were collected and disinfested with alcohol 70% immersion for one minute and in 1% sodium hypochlorite solution for ten minutes, followed by triple wash in sterile distilled water. Later, nodal segments of approximately 1.5 cm long or meristems were isolated, which were inoculated in MS or WPM medium, containing sucrose at 15, 30, 45 or 60 g l<sup>-1</sup>. When using nodal segments, the best results were in WPM medium added of 45 g l<sup>-1</sup> of sucrose. When using meristems, WPM medium also provided the best answers, however, independent of the sucrose concentration used.

Keywords: *Jatropha*, *in vitro* cloning, nodal segments, medium, sucrose

#### Micropropagación de *Jatropha curcas*: una nueva línea de investigación en la Embrapa Clima Templado

Se seleccionaron genotipos superiores de *Jatropha curcas* (piñón manso) en la Embrapa Clima Templado, Pelotas, RS, Brasil, iniciando los trabajos de clonación *in vitro*, con la intención de conservar las características genéticas de interés y para la producción de plántulas libres de virus y otros patógenos, dada la escasez de referencias sobre micropropagación en la