D-28 Restriction fragment length polymorphisms in the coconut palm

M D T Everard Jayamanne[1], Keith Gregg[2]
([1]*Coconut Research Institute, Lunuwila,* [2]*Univ. of New England, NSW, Australia*)

An attempt was made to develop the Restriction fragment length polymorphism (RFLP) technique for genetic assessment of the coconut palm *Cocos nucifera*. A simple miniprep protocol was developed for extraction of DNA from tender coconut leaves.

As a source of potential RFLP probes, a DNA library of 98 clones was constructed by ligating *Sau3AI* coconut DNA fragments into *BamHI* digested bluescribe vector *pTZ18*.

Majority of *E.coli* (PMC112) colonies transformed by recombinant plasmids had high copy coconut DNA sequences. *DraI, EcoRI* and *EcoRV* digested coconut DNA fragments were hybridised to probes labelled with á ^{32}P-dATP at 42°C in Southern blots. The hybridisation patterns were simple and a great majority of cloned sequences shared common binding sites. Six bands exhibited polymorphism across coconut forms. It is very likely that the presence of large sequence repeats in the coconut genome and the use of high copy clones as probes have reduced the efficiency of the detection of RFLPs in the coconut palm. Therefore, it is more appropriate to probe from a low copy DNA library for detecting RFLPs in the coconut palm.

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