

NAMA : ISSANAWATI  
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JUDUL SKRIPSI : Stabilitas Genetik Plantlet Karet (*Hevea brasiliensis* Muell. Arg.) sampai 10 Kali Subkultur dengan Teknik RAPD (*Random Amplified Polymorphic DNA*)  
JUDUL INGGRIS : Genetic Stability of Rubber Plantlet (*Hevea brasiliensis* Muell. Arg.) up to 10 Times Subculture Using RAPD (*Random Amplified Polymorphic DNA*)  
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### ABSTRACT

Superior rubber (*Hevea brasiliensis* Muell. Arg.) clones that produced by grafting using rootstocks from seed has limited production, dependence on the season, the product is not same and incompatibility with the top stem. Provision of rootstock on plant clonally rubber mass is necessary to support productivity. Propagation process is based microcutting aseptic in vitro culture through a series of subcultures into the new media is the best alternative, but potentially causes genetic changes in plant material. The aim of the study is to analyze the genetic stability of plantlets rubber microcutting results which were subcultured to 10 times using RAPD technique. Tests plantlets and the parent plant DNA (control). The presence of amplified bands was analyzed using *ClustalX*. Samples from 3 genotype (43,77 and 100) which consists of 3 samples parent plant and 6 samples of rubber results plantlet subculture 4 and 10. The results showed all three genotypes have a relatively high genetic stability of 70% - 100%. The highest genetic similarity value is 1,000, between genotype 77S<sub>4</sub> and 77S<sub>10</sub>, while the lowest genetic similarity value is 0,701 between genotype 77 and 100S<sub>4</sub> and between genotype 77 and 100S<sub>10</sub>. This result means that if we comparing those genotypes (43,77 and 100) in the parent plant and plantlet subculture there hasn't significance genetic change occur, so that until the 10<sup>th</sup> subculture still be genetically stable.

Keywords: genetic stability, *Hevea brasiliensis* Muell. Arg., microcutting, RAPD, *ClustalX*.