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# Micro propagation of Eucalyptus through Tissue Culture Techniques

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***ABSTRACT***
*Plants cell and tissue culture have served as a methodology of physiology and biochemistry in quest to raise our knowledge in biotechnology and permits the regeneration of plants as clones and as transgenic. Most outstanding advantages offered by aseptic methods of clonal propagation over conventional methods are in a relatively short time and space a large numbers of plantlets can be produced starting from the single explant unlike conventional methods multiplication can be carried out throughout the year and In vitro growing plants are usually free from bacterial and fungal diseases virus eradications maintence of plantlets in virus free can also be rapidly achieved in cultures.*

*In the present study the methodology adopted for conducting micro propagation of eucalyptus through tissue culture techniques and different stages of micro propagation and factors affecting in vitro stages of micro propagating comprised: preparing explants in aseptic conditions; culturing explants in a suitable culture medium under conditions; preconditioning in a suitable culture medium effective have been studied. Accordingly, culturing transformed shoots in tissue culture medium containing a selective agent wherein transformed plant cells expressing said selectable marker are selectively propagated generating explants from the recovered transgenic shoots by successive cycle until pure transgenic explants are obtained. Produced transgenic plants recovered from the pure transgenic explants.*

*In the present study the methodology adopted for conducting micro propagation of eucalyptus through tissue culture techniques and different stages of micro propagation and factors affecting in vitro stages of micro propagation have been studied.*

*For this study nodes of eucalyptus tree were taken as explant and problems of exudation of phenolics and blackening were observed. In regards to this mercuric chloride (0.1%) was used as sterilant to leave for two minutes, and, nodes & internodes for twelve minutes, the survival percentage was 100% and the condition of explant were observed as green and healthy. Bud break was achieved in regards to observe the effect of two plant growth regulators mainly Benzyl Aminopurine (BAP) and Indole -3-Butyric acid (IBA)*

***Key words:*** *Micro propagation, Explant,). Plantlets, eucalyptus, Benzyl Aminopurine, Indole -3-Butyric acid (IBA)*

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