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**INVESTIGATION OF POSSIBLE CAUSES AND
REMEDIAL MEASURES FOR SPLITTING IN
EUCALYPTUS**

BY

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ABSTRACT

This study examined the possible causes of splitting in *Eucalyptus* and how it can be reduced. Log samples were obtained from plantation at Kandapola in the Nuwara Eliya District. These samples were taken from even-age (35 year old) trees of *Eucalyptus microcorys* and *Eucalyptus grandis*.

Patterns of splitting and splitting intensity were measured according to the time period. Splitting in *Eucalyptus grandis* was more severe than *Eucalyptus microcorys*. The pattern of splitting between these two species also varied. Splitting varied according to the bole height in the trees and the diameter of the bole. It was observed that the larger diameter logs were subjected to more splitting. Splitting intensity was higher in the mid bole height than the base and the top height of *Eucalyptus grandis* trees.

The density showed an increasing trend from pith outward and also it varied between the species. Splitting started from the pith and extended towards the bark. Minor

splits were started from bark and extended toward the pith during the second stage of splitting. In *Eucalyptus grandis* it started immediately after felling. Splitting time increased with increasing Equilibrium Moisture Content (EMC). No relationship was found between heart wood percentage and splitting. It was found that splitting can be reduced by reducing the stress from pith outward by fixing ganinails at the cut surface of the logs. Also splitting can be reduced by applying vaslin on the cutting surfaces.

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list Although vaslin and gangnail treatments reduce splitting, it was found difficult to stop splitting completely by these treatments. Other methods are also discussed in controlling splitting: fixing iron ring around the log, debarking three months before felling, using proper logging, sawing and seasoning techniques.

CHAPTER

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