

ABSTRACT

A lot of experiments, most of which were done in subtropical countries, have shown that end splitting of round logs can be controlled by a simple circumferential grooving technique.

This research was conducted in a forest concession in Batuampar, East Kalimantan, Indonesia, in order to measure the impacts of conventional cross cutting on splitting and cracking of rounds due to internal growth stresses, and to determine the effects of one - fifth - radius circumferential grooving done before cross cutting. The trees species involved in the research were *Shorea* spp. from the family of *Dipterocarps* which were measured at various height above ground level

Both the direct measurements done during the research and subsequent data analysis yielded the following interesting results. The number and the length of splits are at their maximum at 13.3 metres above ground level. The one - fifth - radius circumferential grooving decreased both the number and the individual length of splits, regardless of the diameter at breast height (DBH) of the trees being treated. But notably, this technique decreased by more than 50 % the total length of splits in trees whose DBH ranged between 90 - 120 cm, where the total length of splitting is the greatest.

