

Periodicity of xylem growth of rubberwood (*Hevea brasiliensis*) grown in Malaysia

ABSTRACT

A study on the periodicity of xylem growth in rubberwood tree at a plantation at University Putra Malaysia, Serdang, Malaysia, was conducted using a dendrometer and, pinning and knife-cutting methods. From the dendrometer readings, actual radial growth showed no substantial increase during the first six months of the study period. Growth started in the seventh month (July) and continued until the end of the year, after which the tree once again entered a resting period; possibly due to wintering effects at the beginning and end of the year. These results were also supported by pinning and knife-cutting experiments where the scars from the first (January) to the fifth month (May) occurred on previous distinct rings. It can be concluded that the rubberwood studied here showed continuous growth over a year period with a resting stage at the beginning and the end of the growth cycle. This suggests that rubberwood trees produce one growth ring a year. The present study showed that pinning or knife-cutting methods coupled with dendrometer measurements are suitable for elucidating the correlation between growth rings and periodicity of xylem growth.

Keyword: Xylem growth; *Hevea brasiliensis*; Annual ring; Dendrometer; Pinning; Knife-cutting